



National Alliance of Forest Owners
Investing in the Future of America's Forests

April 15, 2013

The Honorable Kenny Marchant
Chair
Working Group on Debt, Equity and Capital
Committee on Ways and Means
U.S. House of Representatives
Washington D.C. 20515

The Honorable Jim McDermott
Vice Chair
Working Group on Debt, Equity and Capital
Committee on Ways and Means
U.S. House of Representatives
Washington, D.C. 20515

The Honorable Jim Gerlach
Chair
Working Group on Manufacturing
Committee on Ways and Means
U.S. House of Representatives
Washington, D.C. 20515

The Honorable Linda Sanchez
Vice Chair
Working Group on Manufacturing
Committee on Ways and Means
U.S. House of Representatives
Washington, D.C. 20515

Dear Chairman Marchant, Chairman Gerlach, Vice Chair McDermott and Vice Chair Sanchez:

On behalf of the National Alliance of Forest Owners, I am writing to thank you for the opportunity to submit comments to the Working Groups expressing our support for current federal tax policy relating to forestry and timber.

NAFO represents private landowners in 47 states who own and manage over 80 million acres of private forestland. Sustainably-managed privately-owned working forests grow the timber that supports the pulp and paper industry, wood products manufacturing, the housing industry, renewable energy and a range of other business activities. Working forests also protect water quality, provide habitat for a range of fish and wildlife and promote opportunities for outdoor recreation.

We appreciate the challenges facing the Working Groups and the Committee as it moves forward with comprehensive tax reform. Accordingly, we wish to highlight three provisions in the Internal Revenue Code which Congress has adopted to reflect the unique economics of timber production and forest management. These provisions allow all owners of working forests, including individuals, corporations, and partnerships:

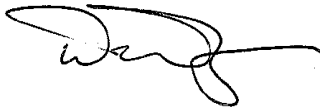
- **Deduction for timber growing costs.** Current law allows forest landowners to deduct operating costs in the year that they are incurred, rather than capitalizing these costs. (IRC Sections 162 and 263A(c)(5))

- **Timber revenue subject to capital gains.** Since 1943, the Internal Revenue Code has treated proceeds from timber harvest and the sale of standing trees as capital gains. (Sections 1231(b)(2) and 631(a)&(b))
- **Deduction and amortization of reforestation costs.** Because reforestation involves significant up-front costs and is environmentally beneficial, current law allows forest owners to deduct up to \$10,000 of reforestation costs per stand as they are incurred and amortize remaining costs over 7 years. (Section 194)

NAFO commissioned a report prepared by Quantria Strategies which found that eliminating these provisions would reduce the productivity of U.S. forestland, lead to adverse economic and environmental impacts and would lead to decreased federal revenue. I have attached a copy of the study for your review.

Thank you for your consideration of our views. We would be pleased to provide additional information to you and the Committee.

Sincerely,

A handwritten signature in black ink, appearing to read "Dave Tenny", with a stylized, flowing script.

Dave Tenny
President and CEO

cc: The Honorable Dave Camp, Chairman, Committee on Ways and Means
The Honorable Sander Levin, Ranking Member, Committee on Ways and Means

Attachment –

Quantria Strategies, L.L.C., "Private Forest Lands: Jobs, the Environment, and the Role of the U.S. Tax Code."

Private Forest Lands: Jobs, the Environment, and the Role of the U.S. Tax Code

Prepared by Quantria Strategies, LLC for the National Alliance of Forest Owners

Federal tax policy has long recognized the special characteristics of the U.S. forestry industry through three Federal timber tax provisions – the deduction for timber-growing costs, capital gains treatment for the sale of timber, and the deduction and amortization of reforestation costs. Eliminating these timber tax provisions for private forestland will adversely affect the economic viability of the forestry and related industries, reduce the productivity of U.S. forestland with commensurate reductions in environmental benefits, impose an unfair burden on private forest owners without a corresponding increase in government revenues, and diminish U.S. competitiveness in world markets.

Private Forest Lands: Jobs, the Environment, and the Role of the U.S. Tax Code

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Private Forest Lands: Jobs, the Environment and the Role of the U.S. Tax Code

EXECUTIVE SUMMARY

Private working forests are natural resources that provide our society with important economic, environmental, and public benefits. The number of acres of private forestland has remained stable over the last 50 years, while productivity has increased substantially through good stewardship. Federal income tax policies are fundamentally important to this outcome. Policymakers have long acknowledged that the Federal tax system must reflect the ongoing economic realities of managing private forestland and encourage long-term investment to allow for this important stewardship.

Findings

Our analysis indicates there would be four significant consequences of repeal of the timber tax provisions in the Internal Revenue Code:

- A 15 percent reduction in forestry and timber sales resulting in the loss of \$34 billion in annual receipts and approximately 140,000 jobs in the forest products industry;
- A substantial reduction in active forest management caused by capitalizing management costs and eliminating the ability to deduct such costs as they are incurred. This will result in the loss of forest productivity and deterioration of social benefits derived from active forest management;
- A net tax increase for private forest owners making forestland a less viable U.S. investment, causing the restructuring of forest ownership, including the conversion of forests to other uses, and moving U.S. forestland investment dollars overseas; and
- Less Federal tax revenue than anticipated as businesses respond to the repeal of the timber tax provisions.

Existing Federal Tax Law Reflects the Economic Reality of Growing Trees

To encourage the important stewardship of private working forests in the United States, policymakers have long acknowledged that Federal tax policy must take into account the unique nature of timber investment and stewardship. The timber tax provisions in the Internal Revenue Code are vital to the continuing viability of owning and managing productive U.S. timberland.

Growing timber takes time and ties up a large amount of investment capital. A marketable tree takes between 20 and 80 years to reach economic maturity, depending on geography and purpose.

Growing trees is risky and mostly uninsurable. Every year, fire, pests, disease, wind and other natural disturbances destroy tens of thousands of acres of private forest. The economic risks that forest owners face include price risk (volatility of log prices), supply risk (productivity and regulatory constraints), demand risk (availability of substitutable materials and/or reductions in demand due to economic conditions), and liquidity risk (ability to dispose of timberland).

Specifically, the Federal tax code recognizes the unique characteristics of timber investments by allowing taxpayers to:

- Deduct the costs of forest management, including preventative measures (fire, pest and disease), thinning, fertilization, interest, taxes, protection of wetlands and endangered species, and forestry activities, as these costs are incurred. *(IRC Section 263A(c)(5))*
- Receive capital gains treatment (since 1944) for the harvest of timber or sales of standing trees. This recognizes taxpayers' large up-front investment and the long holding periods before realizing any gains. *(IRC Sections 1231(b)(2) and 631(a)&(b))*
- Deduct up to \$10,000 of reforestation costs as they are incurred, with the remainder amortized over 7 years. *(IRC Section 194)*

Timber Tax Provisions Help Private Forest Owners Make Important Contributions to the U.S. Economy

Private forest owners hold more than half of all U.S. forestland, from small family-owned timberlands to large operations owning millions of acres. Private forest owners and the timber they produce make a significant contribution to U.S. GDP and employment, providing more than a million direct jobs, with ***total payroll of more than \$50 billion and nearly \$224 billion in timber and related wood products shipments in 2010.*** Total industry-related jobs increase to nearly 2.6 million jobs when considering direct, indirect, and induced employment.¹

Notwithstanding the significant contributions of private forests to the nation's economy, the current recession has led to significant job losses in the forest products industry. ***Since 2006, direct employment in the industry declined from 1.6 million to 1.1 million, representing a 31 percent workforce reduction.*** The Forestry and Logging sector (NAICS 113) lost 21 percent of its employment from 2006 to 2011.

Timber Tax Provisions Help Private Forestland Provide Important Environmental and Societal Benefits

Private working forests provide significant environmental benefits. ***Trees act as nature's air and water filters. U.S. forestland provides nearly two-thirds of the nation's clean water, providing clean water to 40 percent of all municipalities in the United States.***

Private working forests also contribute non-timber forest products to the economy, including medicines, food and horticultural products. They also provide a variety of recreational and aesthetic benefits to the American public.

¹ Refer to "The Economic Impact of Privately-Owned Forests," prepared by Forest2Market, September 8, 2009.

In addition, private working forests absorb carbon from the atmosphere, reducing the effects of carbon dioxide emissions. Studies show that increasing the extent and productivity of working forests is a cost-effective strategy for reducing the effects of greenhouse gases by contributing to: (1) carbon sequestration through forest regrowth after harvest, (2) production of energy-efficient materials and biomass energy as an alternative to fossil fuel energy, and (3) carbon storage in wood products.

The Importance of Maintaining Existing Law

Repeal of the timber tax provisions would result in systemic changes in the forest products industry in the United States:

Reduced Employment in the Forest Products Industry – Eliminating these timber provisions would lower the financial returns for investment in U.S. timber and forestland, resulting in less productive forestland and U.S. investment and consequently fewer U.S. jobs. Repeal of the current-law tax provisions would cause a 15 percent decline in forestry and timber domestic sales, a \$34 billion annual decrease in domestic shipments for the forestry, wood products, and pulp and paper sectors and a loss of approximately 140,000 jobs.²

Loss of a Productive Timber Base and Associated Environmental Benefits – By allowing taxpayers to match closely taxable income with cash flow, current Federal tax law helps maintain a productive timber base. Forest management cost increases would force private forest owners to alter drastically their forest management practices, if they could not deduct forest management costs as they are incurred. Reduced management would make private timberland less productive and would prevent forest owners from protecting wetlands and endangered species and engage in other environmentally positive activities.

A March 2010 Journal of Forestry paper highlights the problem for private forest owners:

“Investments in private forests are inherently long term, whereas costs are annual; liquidity is low; and risks from wildfire, insects, and disease can be high. Under such circumstances, ***a poor tax policy can discourage forest investments*** (emphasis added). If Americans are to continue to enjoy all the benefits they get from America’s private forestlands, then reasonable returns from forestland investments are needed. ***Such returns are possible only if tax policies are sound*** (emphasis added).”³

² To estimate these workforce reductions, we considered the contribution of the forestry sector to revenues in the wood products and pulp and paper industries, per employee contributions to output, and the effects of the repeal of the current-law tax provisions by entity type and size. The estimated 15 percent reduction is a weighted reduction in output, by entity size and is consistent with historical data (considering the relative declines during the recession) by entity size. This estimate does not include the job losses in other industries (indirect and induced employment) that rely on the forest products industries. These losses would result in additional job losses in other sectors with the greatest effect in rural areas.

³ Kimbell, Abigail, Cliff Hickman, and Hutch Brown. *How Do Taxes Affect America’s Private Forestland Owners?* Journal of Forestry, March 2010, p. 93.

Unfair Increase in Federal Tax Liability – As policymakers consider reform of the Federal corporate income tax, it is important to remember that a significant proportion of private forest owners and investors would not benefit from reductions in the corporate income tax rate. Thus, for most private forest owners and investors, repealing the current-law provisions that apply to timber as part of corporate tax reform would result in an ***unfair Federal tax liability increase*** compared to current law.

Jeopardizing Forestland As a Viable Investment – Because prices drive the sale of timber in the United States, eliminating the timber tax provisions would result in lower productivity and higher prices for U.S. timber. This, in turn, would cause a shift in manufacturing offshore and an increase in log and wood products imports from Canada, South America, Northern Europe, and other countries.

Also, because many other countries provide either higher investment returns or tax policy that encourages timber investments, eliminating the existing Federal tax law provisions for timber would eliminate comparative investment benefits of private forestland in the U.S. This would reduce investment in private forests and force the conversion of private forests into other more economically competitive land uses. The loss of productive forestland would impair the ability of American wood products and paper manufacturing companies to compete against foreign producers and sustain U.S. jobs.

Less, Rather Than More, Federal Tax Revenue – The behavioral response to repeal of the timber tax provisions would reduce anticipated revenue effects and result in less Federal tax revenue. The adverse effects that repeal would have on employment and business activity – both in the industry and in related industries – would overshadow the potential increase in Federal revenues that would occur with repeal of these provisions. If private forest owners were required to capitalize their timber-growing and reforestation costs, for example, their response would be to lower costs by reducing investment in forest management. Such reductions would negatively impact forest health and productivity and reduce taxable income.

Thus, while requiring timber management costs to be capitalized may conceivably produce short-term revenue gains, these gains will be offset by lower profits when timber or forestland is sold. Further the systemic changes in the industry, including selling timberland or converting it to other uses, reductions in timberland productivity, declines in manufacturing, job loss and shifting investments to timberland outside the United States would overshadow any potential increase in Federal revenues that would occur with repeal of these provisions and reduce Federal revenues – perhaps significantly – over the long-term.

I. U.S. FEDERAL TAX POLICIES HELP PRIVATE FOREST OWNERS CREATE JOBS AND SUPPORT THE ENVIRONMENT

Private working forests are natural resources that provide our society with important economic, environmental, and social benefits. The number of acres of private forestland has remained stable over the last 100 years, while productivity has increased substantially through stewardship and supportive Federal policies, including income tax policies. Policymakers have long acknowledged that the Federal tax system must reflect the ongoing economic realities of managing private forestland and encourage long-term investment to support this important stewardship.

Tax policies reflecting the realities of forest ownership have helped private forest owners make significant contributions to the U.S. economy. Private forest owners hold more than half of all U.S. forestland, from small family-owned timberlands to large operations owning or managing millions of acres. Forest products from these lands make a significant contribution to U.S. GDP and employment, providing ***\$224 billion in timber and related wood products shipments in 2010, which sustain more than a million direct jobs with total payroll of more than \$50 billion.*** Total industry-related jobs increase to nearly 2.6 million when considering direct, indirect, and induced employment.⁴

In addition, private working forests provide significant environmental benefits. ***Trees act as nature's air and water filters. U.S. forests provide nearly two-thirds of the nation's clean water, providing drinking water to 40 percent of all municipalities in the United States.*** In addition, private working forests help to sequester carbon from the atmosphere, both through tree growth and forest products that store carbon for long periods, reducing the effects of carbon dioxide emissions.

Private working forests also provide woody biomass for use in energy production in place of fossil fuels, contribute valuable non-timber forest products to the economy, and provide a variety of recreational and aesthetic benefits to the American public.

A. Long-Term Federal Tax Policies Help Sustain Private Working Forests

The unique circumstances associated with long-term forest management create specific tax issues that apply to all owners of working forests. An investment in forestland is an inherently long-term investment, taking anywhere from 20 to 80 years to reach economic maturity. In the meantime, the forest owner faces significant annual maintenance costs, including the costs of caring for the trees, equipment and personnel costs, and the costs of Federal, state, and local taxes.⁵ During this period, the forest owner also faces the risk of periodic catastrophic losses from wildfire, insects, disease, severe weather, and other natural disturbances – losses for which

⁴ Refer to “The Economic Impact of Privately-Owned Forests,” prepared by Forest2Market, September 8, 2009.

⁵ Estimated Federal, state and local taxes from U.S. timberland total approximately \$8.1 billion per year. Appendix B provides an overview of the various taxes faced by private forest owners and Appendix A, Table A-2 provides a state-by-state breakdown of state and local taxes paid.

insurance is not available at an affordable rate.⁶ Other factors, such as soil conditions and short- and long-term weather changes affecting temperature, sunlight, and rainfall, add additional ongoing risk to the investment in forestland. Tax policies that do not adequately account for the long-term nature of forestland investments introduce significant cost and timing issues that create pressure on forest owners to convert forestland to non-forest uses.

Few other investments have the combination of (1) a long period to maturity, (2) front-loading of expenses with income generated at the end of the growing period, and (3) unusual risk of complete loss of future income experienced by forest owners. As one paper describing the effects of tax policy on forest investments noted:

“Investments in private forests are inherently long term, whereas costs are annual; liquidity is low; and risks from wildfire, insects, and disease can be high. Under such circumstances, a poor tax policy can discourage forest investments. If Americans are to continue to enjoy all the benefits they get from America’s private forestlands, then reasonable returns from forestland investments are needed. Such returns are possible only if tax policies are sound.”⁷

Since the 1940’s, Federal income tax policies have recognized the unusual nature of the investment in forestland, creating an environment that supports a stable base of investment in private forests in the United States. Three specific Federal income tax provisions (collectively referred to as the timber tax provisions) address the long-term nature of the forestland investment: (1) the deduction for timber growing expenses, (2) capital gains treatment for the sale of timber, and (3) the deduction and amortization of reforestation expenses.⁸ Because the investment in forestland is inherently long term, with a significant mismatch between the timing of expenses and the receipt of income, these timber tax provisions help rationalize the impact of the Federal income tax system on forest ownership.

1. Timber Growing Costs (IRC sec. 263A)⁹

Private forest owners have always been permitted to deduct their timber growing expenditures when the costs are incurred. Timber growing costs include indirect carrying costs, such as interest and property taxes, as well as direct costs, such as clearing brush, mid-term fertilization, annual management costs, and the costs of disease and pest control.

This provision recognizes the unique circumstances associated with forest management. For private forest owners, the mismatch between upfront and ongoing expenditures to manage the forestland investment and receipts from timber sales occurring decades later make it difficult to maintain a cash flow sufficient to sustain a business.

⁶ Kimbell, Abigail, Cliff Hickman, and Hutch Brown. *How Do Taxes Affect America’s Private Forestland Owners?* Journal of Forestry, March 2010.

⁷ *Ibid.*

⁸ The Joint Committee on Taxation and the Treasury Department labeled these provisions as “tax expenditures,” which are defined statutorily as current law provisions identified as exceptions to a normal income tax system. As we conclude in Appendix B, there are questions regarding whether these provision should be a tax expenditure. For a more detailed discussion of the concept of tax expenditures as it relates to these provisions, see the discussion in Appendix B, below.

⁹ References to IRC sections refer to the Internal Revenue Code of 1986, as amended.

If forest owners were not permitted to deduct their timber growing costs as they are incurred, they would be forced to defer those deductions for decades until the timber is harvested or sold. As a result, forest owners would be forced to reduce investment in growing and maintaining timber, which would in turn reduce forest health and productivity resulting in lower timber sale proceeds and lower investment returns. The reduction in investment return would drive the conversion of private forests to other more economically competitive land uses.

2. Capital Gains Treatment for Timber Income (IRC sec. 631)

A private forest owner can treat the gains from the sale of timber as capital gain for Federal income tax purposes. The capital gains treatment was adopted in 1943 to equalize the treatment between those who sold timber as a stand and those who sold cut timber. Congressional hearings in 1943 indicated that taxing timber income at ordinary income tax rates discouraged long-term forest management using sound management practices and the protection of forestland as a natural resource in the United States.¹⁰

In addition, forestland competes for investment dollars with other investments, such as stocks, that are eligible for capital gains treatment. Forestland investments have the characteristics of real estate and other similar assets that receive capital gains treatment; they are a long-lived asset with specific unavoidable physical risks (such as drought, disease, fire, insect infestation and severe weather) not covered by insurance at an affordable rate. Subjecting forestland investments to ordinary income tax rates would put these investments at a significant competitive disadvantage compared to other long-term investments. Taxing timber gains at ordinary income tax rates would create a strong incentive to convert timberland to other uses, particularly given the capital gains treatment for other capital assets such as real estate.

Allowing timber gains to be taxed at capital gains rates also mitigates the significant effects of inflation on the value of timber assets. Because of the long-term nature of the timber investment, inflation gains can reflect a significant percentage of the total gains on the investment. Economists generally believe that taxpayers should not be subject to tax on inflationary gains.

3. Deduction for Certain Reforestation Expenditures (IRC sec. 194)

Private forest owners can elect to deduct currently up to \$10,000 of reforestation expenses with the remaining reforestation expenses amortized over an 84-month period. Reforestation expenditures include the direct costs incurred in connection with forestation or reforestation including costs for the preparation of the site, for seeds or seedlings, and for labor and tools, including depreciation of equipment such as tractors, trucks, tree planters, and similar machines used in planting and seeding.

The Federal income tax system has provided special treatment of reforestation expenses since 1979 in order to encourage the environmental benefits that accrue from reforestation.¹¹ Research shows that financial incentives, such as tax incentives, play an important role in reforestation

¹⁰ See, for example, *Statement of Dave Thompson, Secretary-Treasurer, Angelina County Lumber Co.*, Hearings before the Committee on Finance, United States Senate, on H.R. 3687, November 29, 30, December 1, 2, 3, 4, 6, and 15, 1943, p. 666.

¹¹ The current provision, adopted in 2004, replaced a reforestation credit.

efforts. Studies that have examined the impact of financial incentives (such as tax incentives) on the behavior of non-industrial private forest owners have found that incentives increase reforestation efforts.¹²

B. Private Working Forests Make Significant Contributions to the U.S. Economy

The private-sector forest products industries (forestry and logging, pulp and paper, and wood products) play an important role in the U.S. economy, making direct and indirect contributions to employment and economic activity in every state. Private owners hold more than half of the 750 million acres of forestland in the United States, from small family-owned timberlands to large operations owning millions of acres. Private forest owners and the timber they produce make a significant contribution to U.S. gross domestic product (GDP) and employment. This section details the important contributions of private forests in the U.S. These contributions include market contributions – through employment and earnings derived from the forest products industries – and non-market contributions – through environmental and recreational benefits from stewardship of private forestland.

1. Private Forest Owners Provide Stable Forest Acreage and Increased Productivity of U.S. Forestland

Approximately one-third of the U.S. land area is forestland totaling approximately 750 million acres.¹³ Included in this forestland are timberland, reserved forests, and other forests. The U.S. Forest Service defines timberland as forestland capable of producing wood used in industrial manufacturing, excluding reserved lands.¹⁴ The term “forest owners” includes the owners of any trees or land area that produces a potential wood source. These private working forests supply most of the wood used for construction, paper and other wood-related consumer products.

Table 1 presents the acreage of forestland in the United States according to ownership class and type of forestland. Private owners hold 57 percent of total U.S. forestland (422 million acres) and 69 percent of total U.S. timberland (356 million acres).

Table 1 – U.S. Working Forestland by Ownership Type, 2007 <i>(millions of acres)</i> Source: U.S. Forest Inventory and Analysis, 2011				
Type of Forest	Ownership Class			
	National Forest	Other Public Forest	Private Owners	Total

¹² See Gunter, John, Steven Bullard, M.L. Doolittle, and Kathryn Arano. *Reforestation of Harvested Timberlands in Mississippi: Behavior and Attitudes of Non-Industrial Private Forest Landowners*. See also Forest and Wildlife Research Center, Bulletin #F0172, Mississippi State University, 2001. Zhang, D., and W.A. Flick. *Sticks, Carrots, and Reforestation Investment*. Land Economics 77(3): 443-456, 2001.

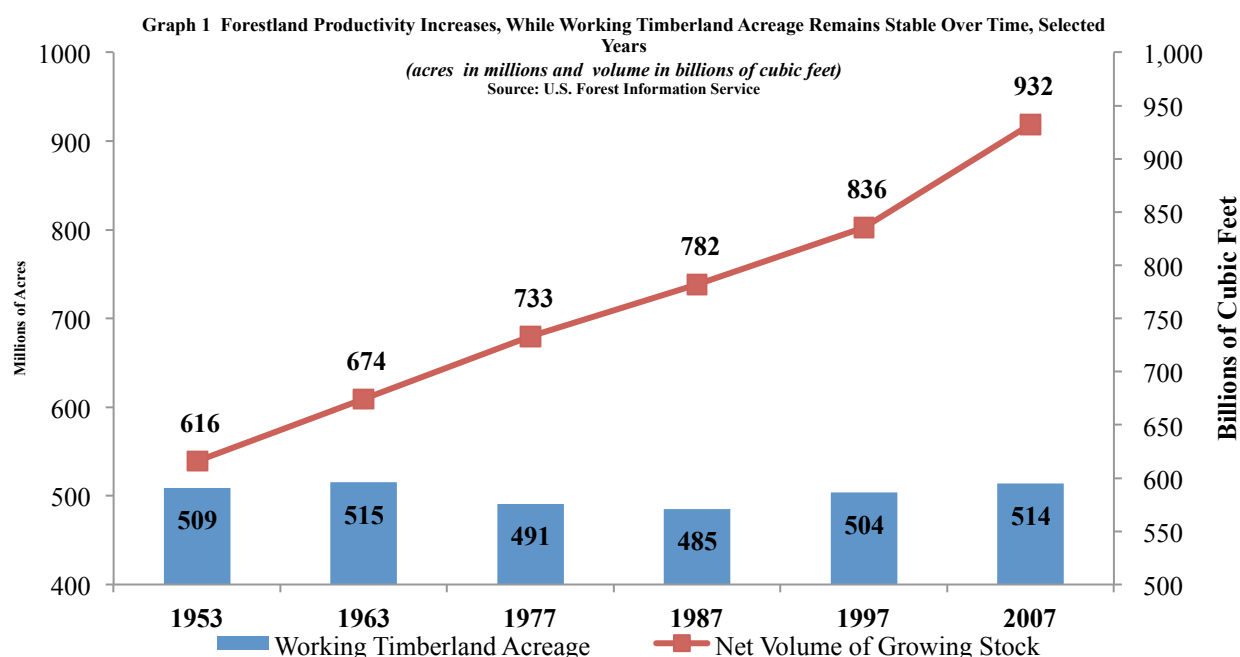
¹³ *U.S. Forest Resource Facts and Historical Trends*, 2007.

¹⁴ Timberland areas must be capable of producing in excess of 20 cubic feet per acre per year of industrial wood in natural stands. Reserved forests include forestland withdrawn from timber use through statute, regulation, or other designation. Other forests include land that is not capable of producing timber, because of adverse natural site conditions, such as sterile soils, dry climate, poor drainage, high elevation, steepness, or rockiness.

Timberland	99	59	356	514
Reserved Forestland	26	48	0	74
Other Forestland	22	74	66	162
Total U.S. Forestland	147	181	422	750
Details may not add due to rounding.				

The forestry and logging industry provides enough wood to satisfy approximately 76 percent of U.S. consumption of commercial forest products with remaining demand satisfied through imports.¹⁵ The costs of U.S. production affect the degree to which the United States relies on imports to meet its consumption demands.

Working forestland area has remained stable over time. Over the past 50 years, the total acreage of working forestland fluctuated downward for a time as acreage was converted to agricultural uses. However, through reforestation efforts, total acreage now exceeds acreage levels from the early 1950's. While total acreage has remained relatively stable, forestland productivity has increased significantly through a combination of forest owner stewardship and supportive local, state, and Federal policies, including tax policies. Graph 1 shows that forest productivity increased by 63 percent, while the acreage designated as working timberland in 2007 (514 million acres) was nearly equal to the acreage (515 million acres) in 1963.



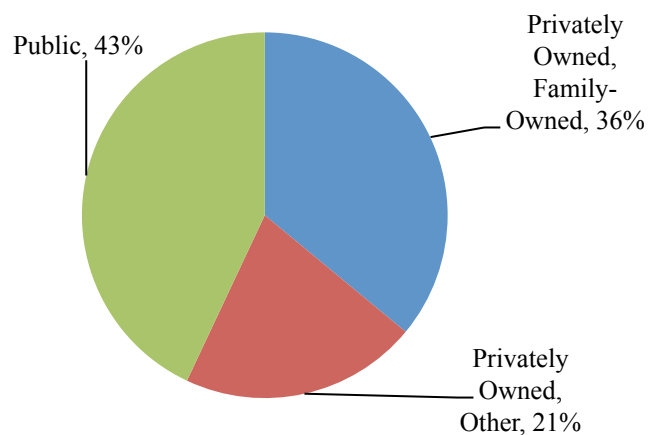
Private owners hold over half (422 acres) of all forestland (750 acres) in the United States as shown in Graph 2. Families and individuals own 63 percent of this private land. While there is no precise breakdown of the remaining privately owned land, only a small percentage remains in corporate form.

¹⁵ *U.S. Forest Resource Facts and Historical Trends*, 2007, *supra*.

According to the U.S. Forest Service, ownership patterns vary across the country, with the largest share of private owners in the South and North regions.¹⁶ The primary reason for this is the abundance of National and other public forests in the West; the majority of publicly held acreage is in the West. (Refer to Appendix A for a detailed state breakdown of forestland ownership.)

Graph 2 U.S. Forestland Distributed by Ownership, 2007

Source: U.S. Forest Information Service, 2011



2. Market Contributions of Private Forestland

Private forests make direct market contributions to the U.S. economy through direct employment and sales to other sectors as well as benefits to industries that depend upon forestry and logging for the inputs to their products. As a result, the reach of this industry exceeds the primary sectors associated with forestry and logging.

Employment in the Forest Products Industries – According to the Bureau of Labor Statistics, the forest products industries provided direct U.S. employment for approximately 1.1 million individuals in 2011.¹⁷ In addition to the jobs in the forest products industries, jobs in other industries rely on these industries. Three different effects contribute to the total impact on employment from the forest products sector:

- Direct effects represent those impacts that occur within a particular industry;
- Indirect effects refer to those economic impacts that occur in other industries as a direct result of supplying inputs to the forest products industries. Many economists refer to indirect effects as “ripple” effects; and
- Induced effects capture the additional impact on income and employment as workers spend the earnings they receive, either directly or indirectly, on goods and services produced for final consumption.

The sum of these direct, indirect and induced effects represents the ***total effect*** of an industry’s impact on employment. The indirect and induced effects are estimates that rely on industry-specific “multipliers” to capture the inter-industry linkages and the flow of goods and services through the economy. A recent Forest2Market study used “Type II” multipliers (i.e., multipliers that identify direct, indirect and induced effects of employment) to calculate total direct, indirect, and induced employment attributable to the forest products industries.¹⁸

¹⁶ See Table 3, below, for the states included in each region of the country.

¹⁷ In 2010, these industries contributed over \$50 billion in payroll, as shown in Table 3.

¹⁸ Refer to Forest2Market, Inc., *The Economic Impact of Privately-Owned Forests*, 2009.

The Forest2Market study indicates that for every direct job in the forest products industries, there are 2.85 jobs created through indirect and induced employment effects. Therefore, when considering direct, indirect, and induced employment, total industry-related jobs increase from 1.1 million to nearly 2.6 million.

Regional Market Contributions – Forest products industries contribute to employment and the economy in every state. Collectively, in 2010, the industries contributed over \$50 billion in wages through direct and indirect employment with shipments totaling \$224 billion.¹⁹ However, because of the topographic characteristics of the country and the distribution of private forest ownership, employment and wages vary from region to region. Table 2 summarizes wages paid, by region, for the direct and indirect employment related to U.S. private forestland.

Table 2 – Annual Regional Payroll Attributable to Employment in Forestry and Logging, Wood Products, and Pulp and Paper Sectors, Distributed by Sector, 2010 <i>(Dollar Amounts in Millions)</i> Source: American Forest and Paper Association				
Region	Forestry & Logging	Wood Products	Pulp & Paper	Total
North Region Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, Wisconsin	\$429	\$6,334	\$14,383	\$21,146
West Region Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, Wyoming	\$916	\$4,451	\$3,712	\$9,080
South Region Arkansas, Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia	\$1,473	\$6,810	\$11,566	\$19,849
Total	\$ 2,818	\$17,595	\$29,662	\$50,075

Non-Timber Forest Products –Non-timber forest products include trees, woody and herbaceous plants, fungi, and other biological material harvested from within and on the edges of forests. Plant parts harvested include the roots, tubers, leaves, bark, twigs and branches, fruit, sap, and resin, as well as the wood. These products include five classes of products: (1) medicinal plants, (2) food and forage, (3) floral, (4) arts and crafts, and (5) horticultural products.²⁰

Domestic non-timber forest products of particular national economic importance include maple syrup, furbearing animals, and products related to the arts and crafts industry. Economically important exports include pecans, floral products, wild blueberries, ginseng, and honey. Estimates of the value of these domestic non-timber forest products exceed \$600 million each year.²¹

¹⁹ Summary statistics rely on data from the Census Bureau, Economic Census data by state.

²⁰ Refer to the U.S. Forest Information Service, *U.S. Forest Resource Facts and Historical Trends*, 2010.

²¹ Ibid.

C. Non-Market Contributions of Private Working Forests

Private forestland also makes important non-market contributions to society. Unlike the economic contributions of employment and incomes, these non-market contributions are difficult to measure. They include environmental benefits, such as clean water and carbon sequestration and storage as well as recreational and aesthetic benefits.

1. Clean Water

U.S. forests play a critical role in the supply of clean water providing nearly two-thirds of the nation's clean water supply.²² Forests cycle water from precipitation through the soil and deliver it as clean water in stream flow. Forested areas provide water to 40 percent of all municipalities in the United States (serving approximately 180 million people).²³

2. Carbon Storage

Forests play a critical role in the ability of the global economy to mitigate the impacts of fossil fuel combustion. As the *National Report on Sustainable Forests* notes:

“...the capacity of forests to sequester carbon may be – or may become – a primary factor for determining the capacity of fossil fueled economies. The global economy, in other words, may be a function not only of the global environment but also, particularly, of the forested environment.”²⁴

Because plants absorb carbon dioxide from the atmosphere, forests serve as a primary vehicle to sequester carbon. Carbon remains part of the plant mass even after the forest biomass dies and is stored as part of the forest ecosystem through standing dead trees, downed dead wood, forest duff and litter, and soil carbon pools.

The U.S. forest products industries contribute to carbon sequestration and storage in several important ways. First, a robust forest products industry ensures a stable stock of forestland. Because 57 percent of U.S. forests are in private ownership, healthy forest products industries guarantee that forest owners are less likely to convert the land to other profitable uses that lack the carbon storage benefit. Second, private forest owners ensure the continuation of an ongoing forest carbon cycle through reforestation and the growth of young trees that store carbon rapidly as they mature.²⁵ Third, forest products, such as the wood used in construction, continue to store carbon for long periods following harvest. Finally, forests and wood processing mills can contribute biomass for energy that may substitute for fossil fuels. A recent study found that increasing the extent and productivity of working forests was a cost-effective strategy for

²² The National Academies. *Hydrologic Effects of a Changing Forest Landscape*. July 2008.

²³ Ibid.

²⁴ *National Report on Sustainable Forests*, II-59.

²⁵ See Bowyer, Dr. Jim, Dr. Steve Bratkovich, Matt Frank, Dr. Jeff Howe, Dr. Sarah Stai, and Kathryn Fernholz. *Carbon 101: Understanding the Carbon Cycle and The Forest Carbon Debate*. January 5, 2012. The rates of growth and carbon capture slow as forest stands age; thus, while older forests may store more carbon, the rate of carbon storage slows as a forest stand ages, may plateau, and may eventually decline due to tree mortality. The harvesting of more mature trees helps to make space in forests for younger trees that will sequester carbon at a faster rate.

reducing the effects of greenhouse gases by contributing to (1) forest regrowth after harvest, (2) production of energy-efficient materials and biomass energy, and (3) carbon sequestration in forests and finished wood products.²⁶

Of the total carbon storage in U.S. forests, 59 percent is stored in forestland held by private owners, compared to 25 percent stored in national forests, and 16 percent stored in other public forests.

3. Recreation and Aesthetics

Private forests are a primary source of access to hunting and fishing, boating, snowmobiling, and other recreational activities. Private forests also enhance the aesthetic value of rural landscapes and communities.

²⁶ Lucier, Alan. *Ecological Implications of Biomass Policies for Private Forests in the United States*. National Council for Air and Stream Improvement, Inc. April 2010. Accessed at <http://nafoalliance.org/wp-content/uploads/NCASI-ecological-sustainability-final.pdf>.

II. CHALLENGES FACING U.S. PRIVATE FORESTLAND

Timber is a renewable resource, which requires careful management to ensure it maintains sufficient structure and quality for harvest. Timber management requires a growth period that can range from 20 to 80 years. This growth period requires a considerable investment at the front-end of the growth cycle. This slow-growing commodity is vulnerable to a number of physical threats, which include catastrophic loss from weather, climate change, fire, pest infestations and disease. Often, forestland competes with higher value non-forest uses, creating strong incentives to convert the land to the higher value uses.

A. Risks to U.S. Forestland Investments

Generally, investments carry risks, and many carry “economic” risks that are specific to a particular industry. Normally, economic risks relate to adversely changing financial circumstances, or those risks posed by possible variations in earnings, prices, sales, rates of interest, or other financial variables.

The economic risks facing forestland investments include:²⁷

- Price risk – Log prices for timber tend to be volatile with price changes fluctuating based on cyclical, seasonal, and demand dynamics.
- Supply risk – Productivity and regulatory constraints may affect the supply of timber.
 - Productivity constraints refer to the ability of forestland to grow trees; for example, the average growing period varies across regions of the United States (South vs. Northwest) and areas of the world (United States vs. tropical areas of South America). Some tropical areas produce harvestable stock over a much shorter growing period than U.S. forests.
 - Regulatory constraints refer to the regulations addressing environmental concerns, occupational health and safety and other matters activities typically subject to government oversight.
- Demand risk – A number of factors may influence the demand for logs, including the: availability of substitutable materials (e.g., recycled paper products), substitutions of other raw products (e.g., substitutions of products from other countries), reduction in demand for logs brought on by economic changes (e.g., reductions in housing starts), and changing population pressures (which affects overall demand).
- Liquidity risk – Liquidity risk refers to the ability to dispose of timberland.

Forestland investment is still recovering from the substantial economic effects of the recession on the timber, wood processing, and wood products industries. The U.S. forest products industry also faces growing investment and manufacturing competition from outside the United States that could threaten both the long-term stability of the industry as well as other domestic industries that rely on forest products as their raw material.

Investments in forestland face a number of physical risks in addition to the economic risks. Both the economic and physical risks can create challenges at any point in the growing process because of the long-term nature of the timberland investment.

²⁷ See, *Timberland Investment*. An AIMCo Perspective, The Timber Group, Alberta Investment Management Corporation, September 2011.

The physical risks to forestland investments include:

- Fire risk – fire risk can vary across forest regions and can be dependent upon other forest management activities (including the management activities on adjoining public forestland);
- Weather risk – weather risk can include damage from drought, excessive rainfall, hail, snow and ice, and hurricanes; weather risk from drought can also interact with fire risk, increasing the overall risk to a stand of timber;
- Insect risk – insect risk includes losses from insect infestations; While large-scale losses seldom occur in healthy forests, these present a potential risk to investment in timber;²⁸
- Disease risk – disease risk tends to be relatively small and contained, as long as the forest is well maintained; and
- Other risks – timber can also face other dangers, such as dangers from animal damage, but these tend to be relatively small and limited in their scope.

Over the last decade, forest owners have faced growing physical risks from fire and insect infestation.²⁹ In its National Report on Sustainable Forests 2010, the U.S. Forest Service noted that the incidence of insect-induced tree mortality has more than tripled in the last 10 years. Further, recent studies suggest an increase in tree mortality from physiological stress related to drought and heat extremes.³⁰

B. Economic Declines in the Forest Products Industries

Since 2006, employment in the forest product industries has fallen from 1.6 million to 1.1 million (representing a 31 percent workforce reduction) (see Table 3). The recession hit the U.S. forest products industries particularly hard, in part because trends in homebuilding have large effects on demand in these industries.³¹ As a result, employment in the forest products industries experienced significant declines during the recent economic recession, with a 15.6 percent reduction from 2008 to 2009. Table 3 provides an industry snapshot for direct employment in the forest products industries from 2006-2011.³²

²⁸ In fact, insects are the most destructive agents to forest and shade trees in the Southern part of the United States. While most outbreaks are small and well contained, an insect outbreak has the potential to expand and encompass thousands of acres and last for several years. See, Douce, GK, DJ Moorhead, and CT Barger. *Forest Pest Control*. The University of Georgia, College of Agricultural and Environment Sciences, Special Bulletin 16, Rev. January 2002. Another example is the pine beetle epidemic in the Canadian province of British Columbia. To date, the epidemic has killed an estimated 710 million cubic meters of commercial pine timber, 53 percent of the total pine timber in the province. Refer to *A History of the Battle Against the Mountain Pine Beetle, 2000 to 2012*, prepared by the Ministry of Forests, Land, and Natural Resources Operations, British Columbia, available at: http://www.for.gov.bc.ca/hfp/mountain_pine_beetle/Pine%20Beetle%20Response%20Brief%20History%20May%2023%202012.pdf

²⁹ U.S. Forest Service, U.S. Department of Agriculture. *National Report on Sustainable Forests, 2010*, FS-979 June 2011.

³⁰ Allen, C.D., et al. *A global overview of drought and heat-induced tree mortality reveals emerging climate change risks for forests*. Forest Ecology and Management. 259:660-684, 2010.

³¹ Refer to Compass, *Forest Industry in the Midst of Rapid Change*, Issue 16, published by the Science Delivery Group of the Southern Research Station, Forest Service, U.S. Department of Agriculture, August 2010.

³² These data are from the U.S. Bureau of Labor Statistics. It is important to note that there are a number of Federal data sources that classify employment by NAICS. While the total employment figures remain consistent across these data sources, there are some variations by industry sectors. Census Bureau data is an annual series that

Table 3 – Employment in the Forestry and Logging, Wood Products, and Pulp and Paper Sectors, 2006 to 2011

NAICS Code	Industry	2006	2007	2008	2009	2010	2011*
Number of Employees – Forestry and Logging							
113	Forestry and Logging	66,018	63,127	59,339	52,320	53,203	52,112
115310	Timber Support Services	15,709	15,697	15,655	14,282	14,033	13,879
Number of Employees – Wood Products, and Pulp and Paper							
321	Wood Product Manufacturing	555,237	513,991	454,549	358,708	339,542	336,626
337110	Wood Kitchen Cabinet and Countertop Manufacturing	177,153	165,705	145,226	111,252	99,876	96,680
337122	Non-upholstered Wood Household Furniture Manufacturing	70,866	62,479	53,728	42,187	38,246	37,358
337129	Wood Television, Radio, and Sewing Machine Cabinet Manufacturing	2,383	2,658	2,533	2,031	1,746	n/a
337211	Wood Office Furniture Manufacturing	24,854	24,336	23,374	18,413	16,447	16,660
337212	Custom Architectural Woodwork and Millwork Manufacturing	19,128	20,124	20,620	16,494	15,329	15,748
42331	Lumber, Plywood, Millwork, and Wood Panel Merchant Wholesalers	140,262	132,242	119,045	98,068	91,669	88,764
322	Paper Manufacturing	468,422	455,591	441,353	405,438	392,853	388,129
333291	Paper Industry Machinery	10,735	10,938	11,096	9,132	8,587	8,075
4241	Paper Wholesale	149,313	145,533	140,395	129,765	124,138	121,540
Total Employees		1,618,353	1,533,597	1,411,919	1,191,488	1,128,433	1,109,580
Source: Quarterly Census on Employment and Wages (QCEW), Bureau of Labor Statistics							
* Figures for 2011 are preliminary estimates.							

While the rate of job losses has abated, the industries' workforces are at a significantly lower level than at any time during the previous five years. Although homebuilding is one of the major drivers of the demand for timber and timber products and a dominant near-term cause of job loss, other long-term trends such as declining demand for paper and paper products have also affected industry employment.

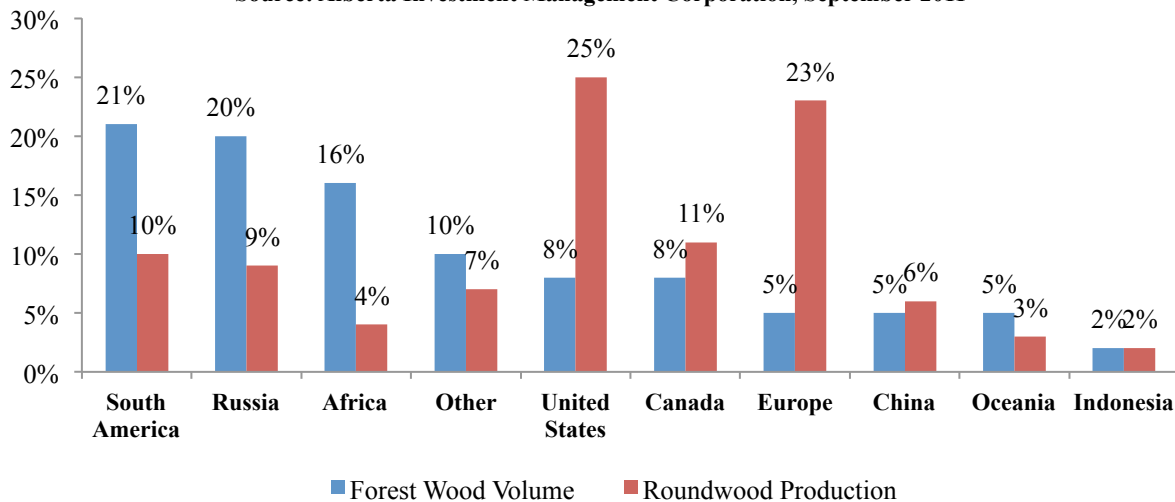
provides subnational economic data by industry. Quarterly Census on Employment and Wages data represent the complete and final count of employment and wages for workers covered by State Unemployment Insurance laws and the Unemployment Compensation for Federal Employees program for the 50 States, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. The variations in the employment are attributable to the underlying differences in the classification systems of the two primary Federal data sources.

C. International Competition

The U.S. forest products industry competes in world markets. The United States, which has approximately five percent of the world population, consumes 27 percent of the world's industrial wood products.³³ While domestic timber inventory is only eight percent of the world's total inventory, it produces 25 percent of the world's roundwood. Approximately 76 percent of U.S. consumption (of wood and paper products) relies on timber from domestic supplies.³⁴ Thus, the United States relies on non-U.S. markets to supply wood and paper product to meet nearly a quarter of its domestic consumption. The reliance on non-U.S. wood markets fluctuates based on the productivity and competitiveness of the domestic timber supply.

Graph 3 World Timberland Supply and Production, 2011

Source: Alberta Investment Management Corporation, September 2011



Graph 3 shows the world timberland supply and production, ranked by forest wood volume. However, the forest wood volume is not a perfect indicator of the production capacity. As shown in Graph 3, the United States has 8 percent of the world forestland but produces 25 percent of the world's roundwood production.

Worldwide Returns on Forestland Investments – Returns on forestland investments vary widely across regions and countries. The costs of growing timber, the relative risks (economic and physical) in a particular region, and the demand for the investments in a region affect the returns on timber investment. Thus, wood production and trade will vary depending upon a variety of factors, including the extent of natural and planted forestland (e.g., plantations), manufacturing production costs, exchange rates, environmental and forest policies (regulatory environment), trade laws, risk, and other factors.³⁵ The tax policy in any country will be an important factor in determining the relative competitiveness of timber investments in that country.

Generally, there is a positive relationship between investment returns and investment risks. As investment risks increase, the investor must receive a greater investment return to compensate for

³³ U.S. Forest Service. *U.S. Forest Resource Facts and Historical Trends*.

³⁴ Ibid.

³⁵ Cabbage, Frederick, et al. *Global timber investments, wood costs, regulation, and risk*. Biomass and Bioenergy 34:1667-1678, June 29, 2010.

that risk. U.S. investors will gravitate toward riskier investments with higher returns if returns on U.S. timber decline.

While it is difficult to directly compare investment returns in the United States relative to other areas, Table 4 provides a range of expected returns by the perceived investment risk. Table 4 distributes the countries by the development level of the timber market. Over time, as countries or regions of the world develop their timber investment markets, the perceived risk of investment declines.

Table 4 – Expected Investment Returns for Timber Investments, by Regions and Perceived Country Risk			
Developed Regions (6-8 percent)	Newly Developed (8-12 percent)	Developing (13-19 percent)	Frontier (20+ percent)
United States	Brazil	Central America	Russia
Canada	Uruguay	Central/Eastern Europe	Southeast Asia
New Zealand	Chile	Argentina	East Africa
Australia			
Source: <i>Timberland Investment</i> . Alberta Investment Management Corporation, September 2011.			

In general, the United States has provided a relatively low risk environment for timber investments. As a result, demand for timberland investments in the United States has generally been relatively high, resulting in a lower return on investment than in other parts of the world. However, if the U.S. investment returns should decline, U.S. investors will be driven to consider accepting greater risks to receive the higher returns in other markets.

Competitiveness of U.S. Forestland Investments – For many countries, international trade is a significant factor in the commercial use of forestland.³⁶ Some countries have created favorable climates for investment in forestland in order to increase their production of wood products. The competitiveness of U.S. industries compared to non-U.S. industries will determine levels of wood and paper production in the United States. As the U.S. Forest Service notes, “the quantity of wood and wood products consumed is an indicator of the relative importance of forests as a source of raw materials . . . when demands for consumption are not balanced by supplies . . . the imbalance creates price pressures that often have repercussion in the forest sector or elsewhere in the economy and society that may call into question long-term forest sustainability.”³⁷

While the U.S. forest products industry has long enjoyed a position of strength in world markets, recent trends suggest that this position may be changing. Current market trends show investors looking for balanced portfolios with the highest possible rates of return. If forestland investment returns outside the United States significantly exceed those earned through forestland investments in the United States, investment will shift toward those higher returns causing U.S. production to decrease.

³⁶ See the discussion concerning the position of the United States in world markets in Appendix C.

³⁷ *National Report on Sustainable Forests*, supra.

III. IMPORTANCE OF MAINTAINING CURRENT FEDERAL TAX POLICIES

As policymakers consider fundamental tax reform, current Federal tax policies face increased scrutiny. Many advocate adoption of a variety of base broadening provisions in exchange for lowering the top corporate income tax rate. In this context, repeal of the three provisions important to private working forests (deduction for timber growing costs, capital gains treatment for timber sales, and deduction for reforestation expenses) would cause significant adverse impacts that would overshadow perceived or real increases in tax revenue.

A. Repeal of Current-Law Provisions Would Lead to Net Tax Increases for Private Forest Owners

In February 2012, President Obama released a framework for corporate tax reform that included recommendations to lower the top corporate income tax rate to 28 percent and to repeal dozens of “business tax loopholes and tax expenditures.”³⁸ The framework states, “the President’s plan would start from a presumption that we should eliminate all tax expenditures for specific industries, with the few exceptions that are critical to broader growth or fairness.”³⁹

Under the President’s plan, the three provisions vitally important to private working forests would be repealed. However, the majority of private forest owners would not benefit from reductions in the corporate income tax rate. Thus, for most private forest owners, repealing the current-law provisions that apply to the industry would result in a net increase in Federal taxes compared to current law.

These tax increases would adversely impact the forest products industries in the United States (and other industries), leading to adverse effects on the economy and the environment.

B. Adverse Market and Non-Market Effects

1. Adverse Market Effects

Repeal of these Federal income tax provisions would result in systemic changes in the forest products industry in the United States with both market and non-market effects. The market effects include: (1) reducing the financial returns for investment in U.S. timber and timberland, (2) reducing the competitiveness of the forest products industry, and (3) reducing U.S. investment resulting in fewer U.S. jobs.

³⁸ Many believe that the current Federal income tax system needs reform and that restructuring the Federal corporate income tax system would make the United States more competitive in world markets. For the President’s statements on tax reform, refer to the White House and the U.S. Department of the Treasury. *The President’s Framework for Business Tax Reform*. February 2012.

³⁹ Ibid. at p. 9.

Reducing Financial Returns – Private forest owners make long-term investments in a stand of timber without a guarantee of a market for their product when it is ready to harvest.⁴⁰ The current-law tax provisions capture the specific characteristics of the timberland investment and recognize the long-term risks associated with the long growing periods.

If the deduction for timber-growing expenses were repealed, forest owners would be required to capitalize these costs. These costs would increase the basis of the investment for purposes of calculating gain at the time timber is sold. Including the costs in basis at the time of sale would result in a net increase in taxes during the timber-growing period.

This net increase in taxes would alter the delicate cash-flow balance of timber operations. Private forest owners often lack a constant stream of revenue from timber sales to help pay the annual costs relating to forest maintenance, taxes, and other ongoing expenses making them land rich and cash poor prior to the timber sale.

The current-law provisions, particularly the deduction for timber growing costs, helps private forest owners match the timing of their deductions with the timing of their costs. In addition, the capital gains treatment upon the sale of timber allows private forest owners to earn a reasonable rate of return from their investment in the forest, consistent with other similar assets that receive long-term capital gains treatment.

Repeal of the timber tax provisions would result in smaller investments in forest management, reduced rates of return from the sale of timber and significant losses in overall forest productivity. The productivity gains over the last 50 years remain a remarkable achievement attributable to advances in forest stewardship and modern forest management activities encouraged by policies such as the timber provisions in the tax code. The loss of the timber tax provisions would reverse this trend.

The repeal of these provisions would also lead to fundamental restructuring of the industry. The repeal would cause some private forest owners to cease their forestry operations (either selling their forestland or allowing the forests to remain idle) or to convert the land to other non-forestry uses. Furthermore, repeal of the provisions could force restructuring of business forms and operations, drive investors toward alternative, higher yield investments, and shift investment dollars outside the United States to developing forest investment markets with more favorable tax policies.⁴¹

Reducing Competitiveness of the Forest Products Industry – Repeal of the timber tax provisions would affect the competitiveness of U.S. timberland investments and related paper and wood products manufacturing. Largely, prices drive the sale of timber and related products in the United States. Because the United States is already a net importer of timber and wood products, if U.S. prices for domestically produced products rise, demand for cheaper products from outside the United States will also rise.

⁴⁰ A single event, such as fire, insect infestation, or drought, can destroy the entire investment.

⁴¹ For example, the definitional rules for timber REITs, coupled with the change in the capital gains tax treatment and the cost capitalization, would make it difficult, if not impossible, for private forest owners to continue using this form of business entity, which attracts capital investments.

Because many other countries provide either higher investment returns or tax policy that encourages timber investment, the existing Federal tax law provisions for timber help contribute to a relatively level playing field for American forest owners and forest products manufacturers to compete against foreign producers and sustain rural U.S. jobs. Eliminating the timber tax provisions would significantly change the playing field and create a competitive disadvantage for U.S. forests and forest products manufacturing. This would result in lower productivity and increased prices for U.S. timber, increased costs for U.S. manufacturing, and a corresponding shift in manufacturing offshore with increased imports of logs and wood products from Canada, South America, Northern Europe, and other countries.

Reducing U.S. Forestland Investment Resulting in Fewer U.S. Jobs – Analysis of the timber and forest products industries by entity status suggests that repeal of the current-law tax provisions would cause significant investment declines in these industries. Current every \$1 in sales from the forestry and logging industry generates approximately \$14.35 in sales for the wood products and pulp and paper industries.

Repeal of these tax provisions will result in an estimated 15 percent decline in forestry and logging domestic industry sales. This decline reflects the cumulative effects of business closings, reorganizations, and contractions associated with changes in the tax code.⁴²

This industry decline would result in a decrease in domestic receipts of approximately \$34 billion each year⁴³ and a corresponding loss of approximately 140,000 jobs. The estimated workforce reductions rely on the contribution of the forestry sector to revenues in the wood products and pulp and paper industries, per employee contributions to output, and the effects of the repeal of the current-law tax provisions by entity type and size. This estimate does not include the job losses in other industries (indirect and induced employment) that rely on the forest products industries. These losses would result in greater job losses in other sectors, with the greatest effect in rural areas.

2. Adverse Non-Market Effects

The systematic changes in the forest products industry from repeal of these Federal income tax provisions would create adverse non-market effects. Among the most significant of these would be the conversion of forests to other more economically competitive land uses with fewer environmental and social benefits. Because forestland competes as an investment with other land uses with much higher rates of return, maintaining the economic competitiveness of forestland by fostering a reasonable rate of return is among the most effective means of preserving private forest and the non-market benefits they provide.

⁴² The assumed 15 percent reduction is a weighted reduction in output, by entity size. It is consistent with historical data (considering the relative declines during the recession) by entity size.

⁴³ This analysis relies on two data sources – the BLS Quarterly Census on Employment and Wages and the public use files of the IRS Statistics of Income. Based on discussions with industry representatives, these estimates assume that the effects of repeal of the current-law tax provisions will vary based on entity size and type with the largest effects affecting smaller forest owners and timber REITs. However, all entities will be affected in some way and will either cease operations entirely (smaller entities) or face a reduction in output (larger entities).

A tax policy that contributes to reductions in the extent and productivity of private working forests in the United States will reduce the positive environmental impacts of forestland including a reduction in clean water and a reduction in carbon sequestration and storage. It will also reduce the aesthetic and recreational benefits the public derives from these forestlands.

The loss of carbon benefits would result from a loss of the productivity gains experienced over the past decades. These productivity gains are a cost-effective strategy for reducing greenhouse gases in the atmosphere through (1) forest regrowth after harvest, (2) production of energy-efficient materials and biomass energy as an alternative to fossil fuels, and (3) carbon storage in wood products. The loss of these productivity gains would significantly diminish the ability of forests and forest products to mitigate overall atmospheric greenhouse gas accumulations.

C. Federal Revenues Will Not Increase

For 2011 through 2015, the staff of the Joint Committee on Taxation (JCT) estimates that the timber tax provisions would reduce Federal revenues by approximately \$4.5 billion.⁴⁴ However, if the timber tax provisions were repealed, Federal revenues would not increase by \$4.5 billion. In fact, revenues might actually decline.

The repeal of capital gains treatment for timber sales would drive investors from the private forest market. Investors would either increase their purchases of other capital assets or shift their investment dollars outside the United States. Thus, the revenue increases from the change in capital gains tax treatment would be offset partially by increasing investments in other capital assets or investments in timberland outside the United States.

If private forest owners were not able to currently deduct their timber-growing and reforestation costs, they would be forced to reduce or eliminate costs associated with forest management, such as investments in stand maintenance. Deferring or eliminating these types of investments would negatively impact forest health and productivity and lead to lower overall revenues from the sale of timber. Thus, while requiring these costs to be capitalized may result in short-run revenue gains, whether real or perceived, the anticipated gains would be offset by lower profits when timber is sold.

Finally, the systemic changes in the industry, including selling timberland or converting it to other uses, reductions in timberland productivity, declines in manufacturing, job loss and shifting investments to timberland outside the United States would overshadow any potential increase in Federal revenues that would occur with repeal of these provisions and reduce Federal revenues – perhaps significantly – over the long-term.

⁴⁴ However, the JCT acknowledges that these estimates do not accurately reflect the increased revenue if the provisions were repealed because the estimates do not consider the potential behavioral responses that would reduce the revenue effects (e.g., the potential for many businesses to cease operations). The JCT and Treasury tax expenditure estimates are included in Appendix B.

D. Summary of Adverse Effects of Repealing Timber Tax Provisions

Eliminating the timber tax provisions will lead to fundamental and systemic changes in U.S. private forestland. This study indicates there will be four significant consequences from repeal of the timber tax provisions in the Internal Revenue Code:

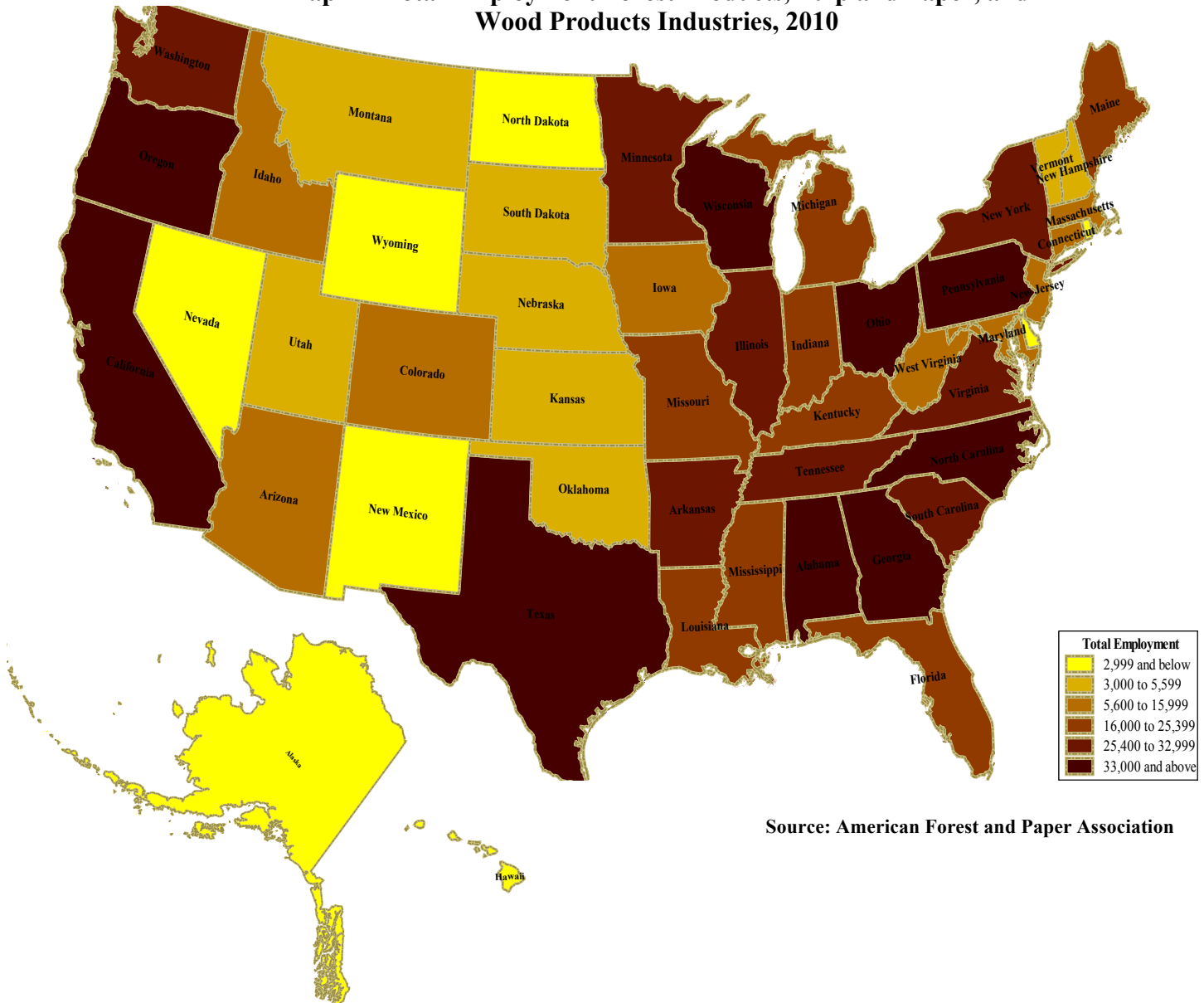
- A 15 percent reduction in forestry and timber sales resulting in the loss of \$34 billion in annual receipts and approximately 140,000 jobs in the forest products and related industries;⁴⁵
- A substantial reduction in active forest management cause by capitalizing management costs and eliminating the ability to deduct such costs as they are incurred. This will result in the loss of forest productivity and deterioration of social benefits derived from active forest management;
- A net tax increase for private forest owners making forestland a less viable U.S. investment, causing the restructuring of forest ownership, including the conversion of forests to other uses, and moving U.S. forestland investment dollars overseas; and
- Less Federal tax revenue than anticipated as businesses respond to the repeal of the timber tax provisions.

⁴⁵ This estimate does not include the job losses in other industries (indirect and induced employment) that rely on the forest products industries. These losses would result in additional job losses in other sectors with the greatest effect in rural areas.

APPENDIX A – Supporting Regional Data

Forestry and Logging, Pulp and Paper, and Wood Products industries maintain a presence in every U.S. state, making significant contributions to employment and wages. The North and South regions of the United States have the greatest concentration of employment in the forest products and related industries. Map 1 displays employment levels in the forest products industries by states. The lighter color states – Western region – employ the fewest workers.

Map 1 – Total Employment Forest Products, Pulp and Paper, and Wood Products Industries, 2010



Source: American Forest and Paper Association

The following tables provide information on the contributions of private forest owners in the United States on a state-by-state basis and demonstrate the importance of the forest products

industries in each state. Table A-1 shows the timberland acres distributed by landowners. Western states tend to have the greatest acreage held in the national and state forest systems, while the southern and northern states have the greatest privately held acreage.

Data for Alaska only includes the southeast coast and does not include the 111 million acres of interior land. The Forest Inventory and Analysis (FIA) program does not yet collect data throughout Alaska. Further, FIA inventory field data from Hawaii are not yet available.

Table A-1 – Total U.S. Timberland Distributed by Land Ownership. 2010 (in thousands of acres)					
State	National Forest System	Other Federal	State, County, & Muni	Private	Total Timberland
Alabama	687	223	414	21,257	22,581
Alaska	3,772	978	4,343	2,771	11,864
Arizona	2,394	22	10	935	3,361
Arkansas	2,440	503	482	15,054	18,479
California	9,275	632	291	8,946	19,144
Colorado	8,053	742	334	2,412	11,541
Connecticut	–	–	393	1,339	1,732
Delaware	–	–	25	351	376
Florida	1,029	683	2,453	11,387	15,552
Georgia	612	674	534	22,427	24,247
Hawaii	–	–	338	362	700
Idaho	11,995	550	1,355	2,303	16,203
Illinois	281	71	287	3,724	4,363
Indiana	178	197	276	3,882	4,533
Iowa	–	104	208	2,512	2,824
Kansas	–	73	36	1,919	2,028
Kentucky	590	217	222	10,618	11,647
Louisiana	672	233	720	12,491	14,116
Maine	47	62	648	16,406	17,163
Maryland	–	26	395	1,950	2,371
Massachusetts	–	60	772	2,114	2,946
Michigan	2,497	158	4,345	12,023	19,023
Minnesota	1,761	251	6,121	6,978	15,111
Mississippi	1,316	474	463	17,283	19,536
Missouri	1,410	266	752	12,247	14,675
Montana	11,962	886	696	6,247	19,791
Nebraska	42	33	68	1,030	1,173
Nevada	253	105	21	38	417
New Hampshire	626	54	405	3,589	4,674
New Jersey		54	534	1,289	1,877
New Mexico	2,802	27	119	1,411	4,359
New York	11	118	1,592	14,293	16,014

Table A-1 – Total U.S. Timberland Distributed by Land Ownership. 2010 (in thousands of acres)					
State	National Forest System	Other Federal	State, County, & Muni	Private	Total Timberland
North Carolina	1,093	597	790	15,436	17,916
North Dakota	23	50	49	411	533
Ohio	222	16	455	6,952	7,645
Oklahoma	223	220	139	5,651	6,233
Oregon	11,583	2,302	1,023	9,709	24,617
Pennsylvania	482	57	3,828	11,651	16,018
Rhode Island	–	–	53	298	351
South Carolina	619	394	444	11,184	12,641
South Dakota	991	82	44	435	1,552
Tennessee	666	350	588	12,310	13,914
Texas	662	129	164	10,904	11,859
Utah	2,995	153	165	699	4,012
Vermont	255	32	346	3,849	4,482
Virginia	1,616	242	467	12,983	15,308
Washington	6,355	164	2,680	9,674	18,873
West Virginia	980	107	315	10,395	11,797
Wisconsin	1,376	139	3,500	11,028	16,043
Wyoming	3,876	504	288	1,329	5,997
Total	98,722	14,014	44,990	356,486	514,212
Source: U.S. Forest Service, Forest Information Agency and American Forest and Paper Association					

This relationship between publicly and privately held lands is consistent with the job creation potential, as the privately held land provides the greatest contribution to employment and industry shipments.

Table A-2 shows estimated state and local tax payments related to the forest products industries for 2010. These payments totaled more than \$4 billion in 2010.

**Table A-2 – Estimated State and Local Tax Payments from U.S. Timberland, 2010
(Dollar Amounts in Thousands)**

State	State and Local Tax Payments	State	State and Local Tax Payments
Alabama	\$ 93,000	Montana	24,000
Alaska	n/a	Nebraska	\$ 15,000
Arizona	45,000	Nevada	9,000
Arkansas	78,000	New Hampshire	25,000
California	318,000	New Jersey	153,000
Colorado	26,000	New Mexico	8,000
Connecticut	48,000	New York	165,000
Delaware	n/a	North Carolina	156,000
Florida	130,000	North Dakota	n/a
Georgia	175,000	Ohio	170,000
Hawaii	n/a	Oklahoma	21,000
Idaho	36,000	Oregon	158,000
Illinois	150,000	Pennsylvania	172,000
Indiana	96,000	Rhode Island	11,000
Iowa	48,000	South Carolina	131,000
Kansas	27,000	South Dakota	12,000
Kentucky	68,000	Tennessee	116,000
Louisiana	108,000	Texas	194,000
Maine	116,000	Utah	20,000
Maryland	30,000	Vermont	15,000
Massachusetts	85,000	Virginia	94,000
Michigan	110,000	Washington	222,000
Minnesota	97,000	West Virginia	20,000
Mississippi	75,000	Wisconsin	228,000
Missouri	62,000	Wyoming	n/a

Total State and Local Taxes = \$4,160,000

Source: Bureau of Economic Analysis and American Forest and Paper Association

APPENDIX B – Taxes Affecting Private Forest Owners

Federal, state, and local taxes represent a significant cost of doing business for private forest owners. In addition to income taxes that usually apply at both the Federal and state level, private forest owners must pay property taxes on the land that they own. Further, when a private forest owner dies, Federal and state estate and inheritance taxes may require the sale of forestland to satisfy the tax obligations. This appendix provides a broad overview of the types of taxes applied to private forests. In addition, this appendix provides a brief discussion of the issue of “Federal tax expenditures,” which are provisions under consideration as policymakers discuss Federal corporate income tax reform.

1. Federal and State Income Taxes

Private forest owners generally are subject to Federal and, frequently, state income taxes on the income from their forestland investment. However, how these owners are affected by Federal and state income tax systems depends upon the characteristics of the owner.

Individual private forest owners may hold their forestland as an individual taxpayer (sole proprietorship) or through another structure, such as a partnership, S corporation, or C corporation. Further, the timber business may be ancillary to another business of the taxpayer, such as farming. If the timber business organizes as a C corporation, the owner faces two levels of taxation – the corporate income tax and, when earnings are distributed to the owner, the individual income tax.

Timber REITs are C Corporations that are entitled to a deduction for dividends paid to their shareholders out of current income and net capital gains. A timber REIT is a REIT whose assets (more than 50 percent of the value of the REIT’s assets) consists of real property held in connection with the trade or business of producing timber. REITs must satisfy a variety of requirements relating to ownership and organization, sources of income, permissible assets, and distribution of income.⁴⁶

In some cases, a TIMO (timber investment management organization) will manage private forestland held by a group of investors. TIMO investors may be individuals or institutional investors, such as tax-exempt organizations or private pension plans. Tax-exempt organizations and private pension plans investing in private forestland are not subject to Federal income taxes; however, in the case of a private pension plan, the earnings are subject to tax when employees receive benefits under the plan.

Data from the IRS Statistics of Income provide detail on the businesses that, for Federal income tax purposes, indicate their primary line of business is Forestry and Logging.⁴⁷ IRS data are available through the 2009 tax year. As a result, the IRS data do not reflect significant transactions, such as the sale of forestland assets or changes in business structure that occurred after that date.

⁴⁶ Owners of forestland pay Federal and state individual income taxes on the earnings on their investments. These earnings may be characterized as ordinary income, capital gains, or dividends. The maximum rate of Federal income tax currently imposed on capital gains and dividend income is 15 percent.

⁴⁷ NAICS code (113) captures a significant portion of the private sector Forestry and Logging companies.

Table B-1 presents tax data for partnerships that identify their primary business operations as Forestry and Logging. Some private forest owners who utilize the services of TIMOs will be included in these figures.⁴⁸ The trend in total assets is consistent with the growth in the use of TIMOs over the past ten years. In the period from 2003 through 2009, the total assets reported nearly tripled.

However, the other important trend that the tax data reinforces is the impact of the economic downturn. Total assets increased steadily over the period, but total net income dropped significantly. While total net income is not yet showing signs of rebounding to its pre-recession levels reported in 2007, it does at least exceed the 2003 levels.

Table B-1 – Selected Tax Return Data, Forestry and Logging Industry Partnerships, 2003-2009 <i>(dollar amounts in thousands)</i>							
Item	2003	2004	2005	2006	2007	2008	2009
Number of Partnerships	5,499	5,124	6,701	8,815	6,120	6,308	7,426
Total Assets	\$19,242,135	\$19,665,428	\$27,568,995	\$40,434,255	\$47,736,762	\$54,230,447	\$56,448,207
Total Income	3,292,613	2,978,524	3,091,633	4,451,336	3,289,604	2,741,227	1,657,218
Total Deductions	4,044,402	3,557,806	3,447,527	4,296,826	3,720,858	3,661,914	2,304,309
Total Net Income	-538,198	-348,388	59,509	924,049	696,322	256,529	129,822
Net Income	401,512	390,499	695,542	1,703,700	1,453,763	1,197,365	773,508
Loss	-939,710	-738,888	-636,033	-779,652	-757,441	-940,836	-643,686
Source: IRS, Statistics of Income							

Table B-2 provides comparable data for Forestry and Logging firms that organized as corporations, which includes S Corporations and Timber REITs.⁴⁹ Compared to the total asset growth in the partnership data, this table reflects a modest increase in total assets. The industry trend in private forestland has been away from C Corporation status to Timber REIT status. Therefore, the modest increase may reflect two offsetting trends – the increase in Timber REIT assets coupled with the decrease in other C corporation assets.

The trend in net income in recent years is consistent with the trend demonstrated by the partnership data. The economic downturn affected all types of businesses in the Forestry and Logging industry.

⁴⁸ These figures do not include all TIMOs, as some report that they organize as a C corporation.

⁴⁹ Table B-2 does not reflect the taxes paid by owners of corporations, S corporations, or Timber REITs on the income paid to them by these entities, such as annual dividend payments.

Table B-2 – Selected Tax Return Data, Forestry and Logging Industry Corporations (Including Timber REITs), 2003-2009 <i>(dollar amounts in thousands)</i>							
Item	2003	2004	2005	2006	2007	2008	2009
Number of Returns	10,765	10,683	11,176	10,850	10,097	9,942	10,393
Total Assets	\$11,634,558	\$11,914,166	\$12,841,115	\$21,127,500	\$19,273,626	\$17,906,348	\$13,771,102
Total Receipts	11,527,474	13,892,985	16,379,169	15,651,761	15,114,684	13,900,184	10,050,128
Total Deductions	11,508,739	13,716,258	15,876,134	15,463,619	14,960,194	13,950,776	10,243,827
Total Net Income	17,486	176,198	501,348	185,604	151,448	-52,816	-195,354
Net Income	551,130	758,077	887,838	846,793	890,756	604,173	418,575
Loss	-533,644	-581,879	-386,490	-661,189	-739,308	-656,989	-613,930
Taxable Income	212,479	380,452	399,553	275,326	229,109	174,494	141,468
Total Income Tax After Credits	69,604	128,315	127,075	91,883	75,933	52,941	45,735
Source: IRS, Statistics of Income							

Table B-3 presents tax return data for firms organized as nonfarm sole proprietorships that identified Forestry and Logging as their primary business operation. Since the IRS does not require total asset reporting for sole proprietorships, it is not possible to track the trend in forestry and logging ownership. In addition, these statistics capture nonfarm sole proprietorships only, so it is possible that there are some sole proprietorships filing as farms that also include some private forest activity, which will not be included in these statistics.

The numbers of sole proprietorship returns showed a steadily increasing pattern until 2009, when total returns declined significantly. One possible explanation for the significant decline in 2009 may be that smaller (e.g., family-owned) Forestry and Logging businesses may not have felt the full impact of the economic downturn until the final periods of the recession because they may operate in limited markets that insulated somewhat the impact of the recession. However, the figures for 2009 may reflect the accumulation of the economic stresses of the previous periods. It is also possible that the significant decline might represent an anomaly in the way that the IRS presents the sole proprietorship data for that year.

The same pattern appears with total net income for sole proprietors. For the most part, both business income and deductions declined steadily over the 2003 to 2009 tax years.⁵⁰

Table B-3 – Selected Tax Return Data, Forestry and Logging Industry Sole Proprietorships, 2003-2009 <i>(dollar amounts in thousands)</i>							
Item	2003	2004	2005	2006	2007	2008	2009
Number of Returns	44,858	48,400	55,831	45,817	51,332	51,577	38,865
Total Business Receipts	6,284,284	5,947,055	6,026,299	4,927,168	5,208,334	5,188,799	3,904,780
Total Business Deductions	6,026,825	5,587,068	5,544,698	4,597,434	4,904,911	5,036,388	3,855,915
Total Net Income	257,458	360,087	481,976	330,074	303,534	158,618	50,744
Net Income	456,053	578,150	741,815	553,476	583,592	501,568	332,928
Net Loss	198,594	-218,063	-259,839	-223,402	-280,058	-342,950	-282,184
Source: IRS, Statistics of Income							

⁵⁰ The exception to this is the 2005 period, where it appears that business activity increased temporarily.

2. Federal Estate Tax and State Estate and Inheritance Taxes

Individual private owners of forestland, particularly family forest owners, face potential estate taxes that could force the parcelization or fragmentation of their forestland.⁵¹ This occurs because forestland is a fairly illiquid asset, particularly in the case of smaller family forest owners. Often, the only way to raise sufficient funds to pay the estate tax liability is through liquidation of some or all of the forestland.

A study published in 2006 attempted to quantify the effects of the Federal estate tax on forest owners.⁵² The authors surveyed a random sample of members of two forest owner organizations and other rural landowners to gather the necessary data to conduct the study. They found that 38 percent of forest estates owed Federal estate tax, which is a rate significantly higher than the average for all U.S. estates. In 28 percent of the cases in which the estate owed Federal estate tax, timber or land was divested because other assets were not adequate to pay the estate tax liability; in 29 percent of the land divestiture cases, the land was converted to a more developed use. Cases in which timber was sold to pay the Federal estate tax occurred with forests of a wide range of sizes from 79 to 10,000 acres. Cases in which land was sold to pay Federal estate taxes tended to occur with smaller forests (100 to 2,000 acres). Extrapolating the results of the survey, the authors estimated that the total land sold each year to pay part or all of the Federal estate totaled 1.3 million acres.

Certain provisions of the existing estate tax may ameliorate the effects of the Federal estate tax, including exclusions for land protected through conservation easements and the special use valuation provisions.⁵³ The 2006 study found that only 33 percent of forest estates qualified for the special use valuation provisions and only 26 percent elected to use this valuation.⁵⁴ However, the study authors extrapolated these responses to estimate that approximately 20,000 forest estates would elect special use valuation each year with a combined total reduction in the value of their gross estates of \$6.5 billion.

The problems presented by the estate tax are exacerbated by certain timber trends; rising forestland and stumpage values drive the size of the estate even higher and the age of nonindustrial private forest owners is also increasing with approximately 60 percent now age 55 or older.⁵⁵ A recent article in the *Journal of Forestry* articulated the problem as follows:

“The estate tax raises a fairness issue: taxing an estate composed of stocks and bonds imposes fewer hardships than taxing an estate composed primarily of illiquid assets such as forestland and timber. If some stocks or bonds must be sold

⁵¹ While investors in forestland through a TIMO or timber REIT might also face estate taxes, the issues in this section apply primarily to private forest owners.

⁵² Greene, John L., Steve H. Bullard, Tamara L. Cushing, and Theodore Beauvais. *Effect of the Federal Estate Tax on Nonindustrial Private Forest Holdings*. *Journal of Forestry*, January/February 2006, pp. 15-20. It should be noted that there have been significant annual variations in the structure of the Federal estate tax over the last 10-15 years; as a result, the year in which death of a forest landowner occurred may have significant effects on the resulting Federal estate tax liability.

⁵³ Section 2032A of the Internal Revenue Code of 1986.

⁵⁴ Ibid.

⁵⁵ Kimbell et al, *supra*.

to pay an estate tax, the value of the remainder is unaffected; but if part of a forest property must be sold, the value of the rest can be diminished.”⁵⁶

3. Property Taxes

Property taxes present a particular challenge for forest owners; these taxes generally are imposed on the fair market value of property. However, every state has at least one program intended to help reduce or eliminate property taxes for forestland. Despite these state programs, forest owners cite property taxes as a significant consideration in whether to maintain or sell forestland.⁵⁷

Property taxes account for nearly 75 percent of tax revenues collected by local governments.⁵⁸ The most widespread property tax relief program in the states is a modified assessment provision, which allows current use valuation of property rather than fair market value or highest or best use valuation.⁵⁹

Increases in land values can increase pressure for forest owners to sell their property, even with some form of property tax relief in place. A 2004 study found that the weighted average value of forestland for urban use was 87 times higher than its value as forestland (for 473 counties in the Southeastern United States) and 111 times higher (for 38 counties in the Pacific Northwest).⁶⁰

4. Tax Expenditures

Current debate proposes a reduction in the top Federal corporate income tax rate, which would be paid for with the adoption of a variety of base broadening proposals. The base broadening proposals are typically derived from the list of provisions that are identified as tax expenditures.

Each year the staffs of the Congressional Joint Committee on Taxation (JCT) and the Treasury Department’s Office of Tax Analysis (OTA) publish estimates of Federal tax expenditures.⁶¹ These tax expenditure estimates generate considerable attention because people often view them as the cost of loopholes in the Federal income tax system. The attention paid to tax expenditures, particularly retirement savings tax expenditures, continues to intensify as policy makers and researchers enter the debate.⁶²

⁵⁶ Ibid.

⁵⁷ Yale Forest Forum Review. *Tax Policies and Family Forest Owners*. Volume 12, 2010.

⁵⁸ Kimbell et al, *supra*.

⁵⁹ Ibid.

⁶⁰ Alig, RJ, and A.J. Plantinga. *Future forestland area: Impacts from population growth and other factors that affect land values*. *Journal of Forestry* 102(12):19-24, 2004.

⁶¹ The JCT submits a report containing these estimates to the House Committees on Ways and Means and Budget and the Senate Committees on Finance and Budget. The OTA includes estimates of tax expenditures in the President’s annual budget submission to the Congress.

⁶² Congressional Committees, Congressional support organizations, and private organizations release special studies of tax expenditures from time to time, promoting further interest in the size and scope of these provisions. As examples, see Munnell, Alicia, Laura Quinby, Anthony Webb, *What’s the Tax Advantage for 401(k)s?*, Center for Retirement at Boston College, No. 12-4, February 2012; *Tax Expenditures, Compendium of Background Material on Individual Provisions*, Committee on the Budget, United States Senate, S. Prt. 106-65, December 2000; *Tax Expenditures Represent a Substantial Federal Commitment and Need to Be Reexamined*, United States General Accountability Office, GAO-05-690, September 2005; *Tax Expenditures: Trends and Critiques*, CRS Report for

Defining Tax Expenditures

Current law defines tax expenditures as “revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability.”⁶³ The staff of the Joint Committee on Taxation (JCT) and the staff of the Department of Treasury, Office of Tax Analysis (OTA) each compile an annual list of tax expenditure provisions and estimate the size of the revenue losses attributable to each provision.

The legislative history of the Congressional Budget and Impoundment Control Act of 1974 (Budget Act) indicates that tax expenditures are to be defined by reference to a normal income tax structure. However, since the enactment of the Budget Act, considerable controversy has surrounded the identification of provisions of the Federal tax law as tax expenditures.

Tax expenditures measure the difference between current income tax law and a normal income tax law, which is assumed to be an income tax system based on a broad definition of income with few deductions, exclusions, or other preferences. While this may be a useful exercise to identify certain special provisions contained in the Federal income tax system, it does not reflect other issues that may be relevant to the debate.

An accepted definition of what constitutes a “normal income tax law” does not exist; thus, the decision to characterize any specific provision as a tax expenditure provision relies on the judgment of the Joint Committee and Treasury Department staff. Reflecting the subjective nature of the characterization of provisions as tax expenditures is the fact that the Joint Committee staff and the Treasury Department staff have different approaches to defining tax expenditure provisions; according to the Joint Committee staff, there are at least six significant differences in the way that the Joint Committee and Treasury Department staffs define tax expenditure provisions.

In the context of Federal tax reform, some advocate repealing some or all tax expenditure provisions to broaden the tax base and raise tax revenues. In connection with this analysis, it is important to remember that the measure of revenue losses attributable to a specific tax expenditure provision is not equivalent to an estimate of the revenue that would be raised if the tax expenditure provision were repealed. There are a number of reasons why this is the case; the most significant reason is the fact that a tax expenditure estimate does not take into account the taxpayer behavioral effects that would occur if the tax expenditure provision were repealed.

Congress, Congressional Research Service, RL33641, September 13, 2006; and *Tax Expenditures for Energy Production and Conservation*, Joint Committee on Taxation, JCX-25-09R, April 21, 2009.

⁶³ Congressional Budget and Impoundment Control Act of 1974 (Pub. L. No. 93-344), Section 3(3).

Tax Expenditure Estimates and Private Forest Owners

The current list of tax expenditures identifies three provisions applicable to investments in private forestland. These provisions include (1) the deduction for timber-growing costs, (2) the characterization of gains from the sale of timber as capital gains, and (3) the current deduction and amortization of reforestation expenses.

Tables B-4 and B-5 display the most recent estimates of the JCT staff and the Treasury Department staff of the value of these provisions. The JCT estimates total \$4.5 billion for fiscal years 2011 through 2015, while the Treasury Department estimates total \$1.4 billion for the same period. In each case, the JCT staff estimates are considerably higher than the Treasury Department estimates, but no explanation is provided to account for these differences.⁶⁴

Table B-4 – Joint Committee on Taxation Tax Expenditure Estimates (in billions of dollars)											
Function	Corporations					Individuals					Total 2011-2015
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	
Deduction for timber growing costs	0.2	0.2	0.2	0.2	0.2	[1]	[1]	[1]	[1]	[1]	1.2
Special tax rate for qualified timber gain	—	—	—	—	—	0.4	0.4	0.4	0.5	0.5	2.2
Deduction and amortization of reforestation expenditures	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.1
[1] Positive tax expenditure of less than \$50 million.											
Source: Joint Committee on Taxation. <i>Estimates of Federal Tax Expenditures for Fiscal Years 2011-2015</i> . Prepared for the House Committee on Ways and Means and the Senate Committee on Finance by the Staff of the Joint Committee on Taxation. JCS-1-12, January 17, 2012.											

While vital to the forest products industry, the provisions identified as tax expenditures comprise an extremely small portion of total tax expenditures. The Treasury Department publishes a table ranking the various tax expenditure provisions by dollar value over the fiscal years 2013 through 2017. Some of the largest tax expenditures total hundreds of billions of dollars and, in the case of the exclusion for employer health insurance, trillions of dollars, during this period. The three tax expenditure provision identified above relating to timber ranked 99th, 119th, and 120th on the Treasury Department ranking list. The top 20 tax expenditures total \$5.5 trillion over the fiscal years 2013 through 2017.

⁶⁴ OTA and JCT tax expenditure estimates differ in a number of ways. There are differences in the ways OTA and JCT categorize the provisions as well as the period over which the estimates are provided. In addition, the JCT identifies differences in the way that they prepare their estimates compared to the OTA, including: (1) JCT assumes the next best tax treatment while OTA assumes complete repeal (and no other favorable treatment), (2) JCT and OTA use different baseline projections as well as different data sources, (3) JCT excludes de minimis provisions; and (4) JCT includes negative tax expenditures.

Table B-5 – Treasury Tax Expenditure Estimates (in millions of dollars)																
	Corporations							Total 2013- 2017	Individuals							Total 2013- 2017
	2011	2012	2013	2014	2015	2016	2107		2011	2012	2013	2014	2015	2016	2017	
Deduction for timber growing costs	160	170	170	180	190	200	200	940	90	100	110	110	120	120	120	580
Capital gains treatment of certain timber income	—	—	—	—	—	—	—	—	60	90	80	60	80	100	110	430
Deduction and amortization of reforestation expenditures	10	10	10	10	10	10	10	50	50	60	70	70	80	80	80	380
Source: Office of Management and Budget. <i>The President's Budget for Fiscal Year 2013, Analytical Perspectives, Federal Receipts, Tax Expenditures</i> . February 13, 2012.																

In addition to representing just fractions of the total tax expenditures, these provisions help to encourage forest owners to keep their land devoted to forestland and timber resources. Overall, the Federal income tax significantly impacts investment returns for forestland. A 1999 study of the effects of the Federal income tax on forest owners in the South found that investment returns, as measured by land expectation value, could be reduced by as much as 79 percent if certain provisions of current law were not available.⁶⁵

Tax Expenditure Estimates Versus Revenue Estimates

Actual tax expenditure estimates differ significantly from revenue estimates. Tax expenditures are a measure of the difference between the tax liability under present law and the tax liability from recalculating taxes *without* the benefit of the special tax provision. Tax expenditure estimates assume that taxpayer behavior remains unchanged for estimating purposes. This assumption simplifies the calculation and makes the tax expenditure estimate consistent with to budget outlays. However, unlike tax expenditure estimates, all revenue estimates include anticipated taxpayer behavior.

Three features distinguish tax expenditure calculations from revenue estimates. Considering the repeal of a tax expenditure provision, the revenue estimate calculation:

- Incorporates the effects of taxpayer behavioral changes anticipated in response to the repeal of a tax provision;
- considers the short-term timing of tax payments, rather than focusing on changes in the reported tax liabilities of taxpayers;⁶⁶ and

⁶⁵ Bailey, P.D., H.I. Haney Jr., D.S. Callihan, and J.L. Greene. *Income tax considerations for landowners in the South: A case study of tax planning*. Journal of Forestry 97(4): pp. 10-15, 1999.

⁶⁶ Revenue estimates incorporate the timing of tax payments based on the Federal government’s fiscal years (as opposed to the taxpayer’s fiscal year, which conforms to the calendar year in most cases). The revenue estimate for repeal of a provision would show a smaller revenue gain in the first fiscal year than in subsequent fiscal years. Revenue estimates also reflect some delays in the timing of the revenue gains from (1) taxpayer tendency to postpone or forgo changes in tax withholding and estimated tax payments and (2) transition relief not captured in a tax expenditure calculation.

- considers changes in such other Federal taxes such as FICA, excise taxes, estate and gift taxes.

In each case, the tax expenditure calculation **does not** include any of these effects.

Consequently, many policymakers mistakenly view repeal of tax expenditure provisions as an indicator of the revenue raising potential. In many cases, the revenue estimate of repealing a special tax provision produces considerably less revenue compared to the tax expenditure estimate, because the expenditure estimate does not consider these timing effects and behavioral responses of the affected taxpayers.

The JCT tax expenditure estimates for the three provisions discussed above totals approximately \$4.5 billion over the 2011-2015 calendar year period. The actual revenue that would be raised if these three provisions were repealed would be considerably smaller because private forest owners could be expected to change their operations as a way of reducing the effects of repeal. For example, repeal of the deduction for timber growing expenses would force private forest owners to capitalize these costs and recover them when they sell the stand of timber to which the costs relates. Because this would significantly increase current costs, private forest owners would seek to reduce significantly their timber growing expenses.

With respect to the capital gains treatment for timber investments, equity considerations also raise the issue of whether repeal should apply to existing assets. Taxpayers relied on current law provisions when making the decision to invest in the U.S. forest products industry. Thus, if the capital gains treatment were repealed, a significant issue would be application of the repeal to existing timber assets. If the existing assets continued to be eligible for capital gains treatment, the projected revenue increases would decline significantly. Similarly, if transition relief or a phase in of the proposals were adopted, revenues would also decline.

APPENDIX C—International Competitiveness

A. U.S. Timber Industry Competes in World Markets

The U.S. forest products industry competes in world markets. The United States, which has approximately five percent of the world population, consumes 27 percent of the world's industrial wood products.⁶⁷ While domestic timber inventory is only eight percent of the world total, 76 percent of U.S. consumption (of wood and paper products) relies on timber from domestic supplies.⁶⁸ Thus, the United States is a net importer of timber for domestic use and the United States competes with world suppliers for both the domestic and export markets in timber. This section discusses the challenges facing the U.S. forest products industry operating in world markets.

Forestry experts estimate that the world's forest area is approximately 4.0 billion hectares or 30 percent of the total land area.⁶⁹ Of this world forest area, nearly 96 percent is natural or semi-natural forest area. The remaining 4 percent is managed timberland or plantations – area suitable for timber production for commercial use.

1. U.S. Timber Production Relative to Rest of the World

The United States remains an important source of timber production in the world. A 2011 United Nations report details timber production, exports, imports, and consumption for major areas and countries of the world in 2008.⁷⁰

In 2008, the United States provided 22 percent of the world roundwood production, 18 percent of sawnwood production, 27 percent of pulp for paper, and 21 percent of paper and paperboard products. Graph C-1 below shows how the United States compared in production of woodfuel, roundwood, and sawnwood in 2008 relative to other countries and regions of the world. The table shows that the United States remained the largest producer of these products in the world; at the same time, the United States also remained the largest single consumer of these products as well.

⁶⁷ U.S. Forest Service. *U.S. Forest Resource Facts and Historical Trends*.

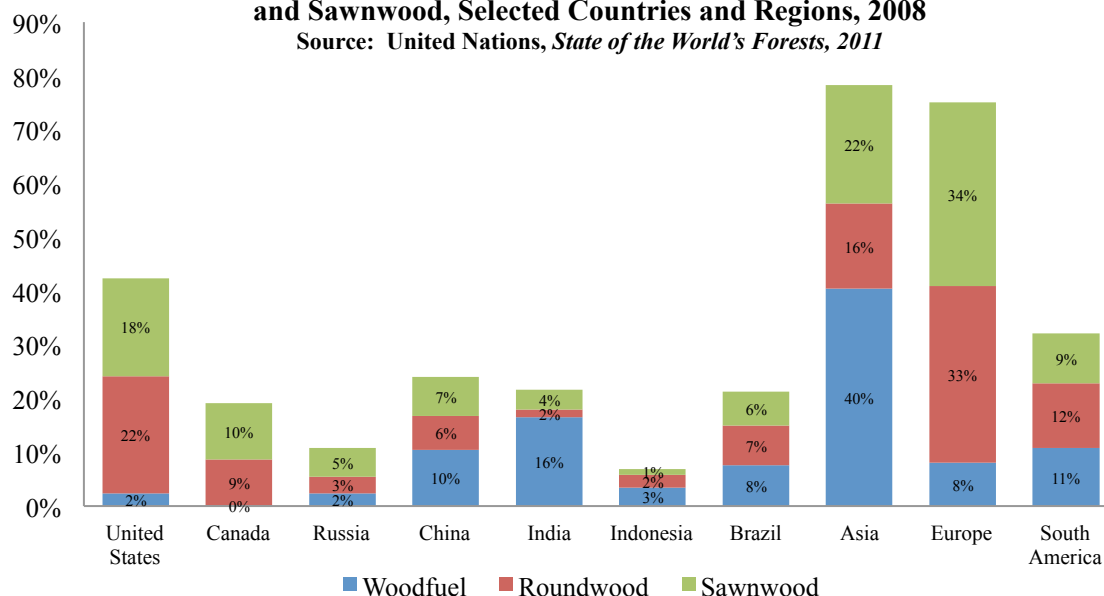
⁶⁸ Ibid.

⁶⁹ Refer to Siry, Jacek P., Frederick W. Cubbage, and David H. Newman, *Global Forest Ownership: Implications for Forest Production, Management, and Protection*, XIII World Forestry Congress, October 2009. One hectare is equal to 2.47105381 acres.

⁷⁰ Food and Agricultural Organization of the United Nations. *State of the World's Forests, 2011*.

Graph C-1 Percentage of World Production of Woodfuel, Roundwood, and Sawnwood, Selected Countries and Regions, 2008

Source: United Nations, *State of the World's Forests, 2011*



2. Imports and Exports of Timber Products

While the United States continues to rely on U.S. forestland for the majority of wood production, the U.S. Forest Service notes that the indicators on production and trade suggest a decline in overall production over the last decade that has been accompanied by an increase in imports.⁷¹ Between 1990 and 2006, the overall value of forest products imports increased 73 percent – from \$24 billion to \$41 billion.⁷² In 2008, the United States accounted for 21 percent of world imports of sawnwood; this correlated with 24 percent of U.S. consumption of sawnwood products.⁷³ In the same year, U.S. imports of pulp for paper and paperboard constituted approximately 11 percent and 16 percent of consumption, respectively.⁷⁴ While most U.S. imports originate in Canada, there have been increasing shipments from Chile, New Zealand, Finland, and other countries.

U.S. export volume declined for all wood products between 1990 and 2006; exports of lumber, plywood and veneer, and logs all declined by more than 65 percent over this period.⁷⁵ Exports as a percent of production declined to 11 percent in 2006. Because of their effects on U.S. harvest, both imports and exports affect the condition of U.S. forest resources.

⁷¹ U.S. Forest Service, U.S. Department of Agriculture. *National Report on Sustainable Forests, 2010*.

⁷² Ibid. Dollar amounts are reflected in constant 2005 dollars.

⁷³ See Table B-1 in Appendix B, above.

⁷⁴ *State of the World's Forests*, supra.

⁷⁵ *National Report on Sustainable Forests*, supra.



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REFERENCES

- Adams, R.M., D.M. Adams, J.M. Callaway, C.C. Chang, and B. McCarl. *Sequestering Carbon on Agricultural Land: Social Costs and Impacts on Timber Markets*. Contemporary Policy Issues 11(1):76-87, 1993.
- Alberta Investment Management Corporation, *Timberland Investment*, September 2011.
- Alig, RJ, and A.J. Plantinga. Future forestland area: Impacts from population growth and other factors that affect land values. *Journal of Forestry* 102(12):19-24, 2004.
- Allen, C.D. et al. *A global overview of drought and heat-induced tree mortality reveals emerging climate change risks for forests*. *Forest Ecology and Management*. 259:660-684, 2010.
- Alvarez, M., *The State of America's Forests*, Society of American Foresters, 2007.
- American Forest and Paper Association, *Forest and Paper Industry at a Glance State Fact Sheets*, available at www.afandpa.org.
- Bailey, P.D., H.I. Haney Jr., D.S. Callihan, and J.L. Greene. *Income tax considerations for landowners in the South: A case study of tax planning*. *Journal of Forestry* 97(4): 10-15, 1999.
- Bowyer, Dr. Jim, Dr. Steve Bratkovich, Matt Frank, Dr. Jeff Howe, Dr. Sarah Stai, and Kathryn Fernholz. Dovetail Partners, Inc. *Carbon 101: Understanding the Carbon Cycle and the Forest Carbon Debate*. January 5, 2012.
- Buongiorno, Joseph, Shushuai Zhu, Ronald Raunikar, and Jeffrey P. Prestemon, *Outlook to 2060 for World Forests and Forest Industries A Technical Document Supporting the Forest Service 2010 RPA Assessment*, Southern Research Station, U.S. Forest Service, U.S. Department of Agriculture, April 2012.
- Buse, Lisa J. Buse and Ajith H. Perera, *Meeting Emerging Ecological, Economic and Social Challenges in the Great Lakes region: Popular Summaries* Forest Research Information Paper No.155, 2003.
- Clutter, Mike, Brooks Mendell, David Newman, David Wear, and John Greis, *Strategic Factors Driving Timberland Ownership Changes in the U.S. South*, working paper from the Southern Research Station, USDA Forest Service, 2006.
- Committee on the Budget, United States Senate. *Tax Expenditures. Compendium of Background Material on Individual Provisions*. Committee Print S. Prt. 109-072, December 2006.

Committee on the Budget, United States Senate. *Tax Expenditures. Compendium of Background Material on Individual Provisions*. Committee Print S. Prt. 111-58, December 2010.

Compass, *Forest Industry in the Midst of Rapid Change*, Issue 16, published by the Science Delivery Group of the Southern Research Station, Forest Service, U.S. Department of Agriculture, August 2010.

Compass, *Perspectives and tools to benefit southern forest resources from the Southern Research Station*, U.S. Forest Service, Southern Research Station, Issue 16, 2011.

Conner, Roger C., South Carolina, *2010 forest inventory and analysis factsheet*, e-Science Update SRS-041, Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station, 2011.

Cubbage, Frederick et al. *Global timber investments, wood costs, regulation, and risk*. Biomass and Bioenergy 34:1667-1678, June 29, 2010.

Forest Landowners Association, *Ensuring the Sustainability of Private Forest Landowners*, 2007.

Forest2Market, Inc., *The Economic Impact of Privately-Owned Forests*, 2009.

Greene, John L, Steve H. Bullard, Tamara L. Cushing, and Theodore Beauvais. *Effect of the Federal Estate Tax on Nonindustrial Private Forest Holdings*. Journal of Forestry, January/February 2006, pp. 15-20.

Guntner, John, Steven Bullard, M.L. Doolittle, and Kathryn Arano. *Reforestation of Harvested Timberlands in Mississippi: Behavior and Attitudes of Non-Industrial Private Forest Landowners*. Forest and Wildlife Research Center, Bulletin #F0172, Mississippi State University, 2001.

Hagan, John M., Lloyd C. Irland, and Andrew A. Whitman, *Changing Timberland Ownership in the Northern Forest and Implications for Biodiversity*, A Publication of the Forest Conservation Program Report #MCCS-FCP-2005-1, 2005.

Harman, Donna, American Forest and Paper Association (President and CEO), National Conference of Private Forest Landowners, PowerPoint Presentation, June 10, 2011.

Herforth, Bruce Warren, *Timber Investment Management Organizations*, PowerPoint Presentation, Forest Investment Services, 2003.

Hickman, Cliff, *TIMOs and REITs*, Forester, R&D, Policy Analysis Staff, 2007.

Hickman, Cliff, *Property Taxes and the Loss of Private Forests*, Forester, R&D, Policy Analysis Staff, 2008.

Internal Revenue Service, Statistics of Income Division, *Corporate Source Book 2009*, Returns of Active Corporations, NAICS 113 (Forestry and Logging), available at www.irs.gov.

- Kimbell, Abigail R., Cliff Hickman, and Hutch Brown, *How Do Taxes Affect America's Private Forestland Owners?* Journal of Forestry, 2010.
- Lucier, Alan. *Ecological Implications of Biomass Properties for Private Forests in the United States*. National Council for Air and Stream Improvement, Inc. April 2010. Accessed at <http://nafoalliance.org/wp-content/uploads/NCASI-ecological-sustainability-final.pdf>.
- Mendell, Brooks C., Tim Sydor, and Seth Freeman, *Introduction to Timber Real Estate Investment Trusts (Timber REITs)*, Timber Mart-South ~ Market News Quarterly, 2007.
- Mississippi State University Extension Service, *Basics of Basis*, 1983.
- Oswalt, Sonja N., Mike Thompson, W. Brad Smith, eds., *U.S. Forest Resource Facts and Historical Trends*, United States Department of Agriculture, 2010.
- PEI Media Ltd., *Investing in Timberland*, August 2010.
- Potter-Witter, Karen and William L. Hoover, *Minimizing Federal Income Taxes for Forest Landowners*, North Central Regional Publication 343, Revised December 2005
- Protected Areas Database U.S. Partnership, *A Map for the Future Creating the Next Generation of Protected Area Inventories in the United States*, 2009.
- QB Consulting and Straight Arrow Consulting, *State Foresters by the Numbers: Data and Analysis from the 2008 NASF State Forestry Statistics Survey*, October 2010.
- Reinhart, Jim, *U.S. Timberland post-recession: Is it the same asset?* R&A Investment Forestry, April 2011.
- Robbins, Jim. *Why Trees Matter*. New York Times, April 11, 2012.
- Robie, Kate, *Institutional Investors: What They Have in Common with Other Forest Landowners and How They See Timber's Future*, Resource Management Service, Birmingham, Alabama, PowerPoint Presentation, June 2010.
- Siry, Jacek P., Frederick W. Cubbage, and David H. Newman. *Global Forest Ownership: Implications for Forest Production, Management, and Protection*. XIII World Forestry Congress, October 2009.
- Siry, Jacek P. and Frederick W. Cubbage, *A Survey of Timberland Investment Management Organizations Forestland Management in the South*, 2002.
- Siry, Jacek P., *Intensive Timber Management Practices*, in Wear, David N.; Greis, John G., eds. Southern forest resource assessment, (Gen. Tech. Rep. SRS-53), U.S. Department of Agriculture, Forest Service, Southern Research Station, 2002.
- Timber Tax Website, Tax Management for Timberland Owners, Federal Tax Issues, available at <http://www.timbertax.org/>.

U.S. Department of Agriculture, Forest Service, Forest Inventory and Analysis, *Fiscal Year 2011 Business Report*, Draft February 3, 2012.

U.S. Department of Agriculture, Forest Service, Forest Inventory and Analysis, *U.S. Forest Facts and Historical Trends*, 2000.

U.S. Department of Agriculture, Forest Service, *National Report on Sustainable Forests – 2010*, December 8, 2008.

U.S. Department of Agriculture, Forest Service, *Forest Landowners' Guide to the Federal Income Tax*, Agriculture Handbook No. 718, March 2001.

U.S. Department of Agriculture, Forest Service, Forest Inventory and Analysis Strategic Plan, *History of Successes and Failures*, 2007.

U.S. Department of Agriculture, Forest Service, *Forests of the Northern United States*, August 2011.

U.S. Environmental Protection Agency. *Forest Carbon Storage*. Accessed at <http://www.epa.gov/climatechange/wycd/waste/downloads/forest-carbon-storage-10-28-10.pdf> on March 20, 2012.

U.S. Environmental Protection Agency. *U.S. Greenhouse Gases Emissions and Sinks (MMT CO₂ Equivalents)*. Accessed at <http://epa.gov/climatechange/emissions/downloads11/GHG-Fast-Facts-2009.pdf> on March 20, 2012.

United Nations, Food and Agricultural Organization. *State of the World's Forests*, 2011.

Wang, Linda and John L. Greene, *Tax Tips for Forest Landowners for the 2011 Tax Year*, Cooperative Forestry Technology Update, U.S. Department of Agriculture, Forest Service Southern Region, 2011.

Wear, David N., *Measuring Net Investment and Productivity in Timber Production*, Science, Vol. 40, No. 1, 1994.

Wear, David N. and John G. Greis, *The Southern Forest Futures Project: Summary Report*, Southern Research Station, U.S. Forest Service, U.S. Department of Agriculture, May 12, 2011.

Wicker, Gerald, *Motivation for Private Forest Landowners*, in Wear, David N.; Greis, John G., eds. Southern forest resource assessment, (Gen. Tech. Rep. SRS-53), U.S. Department of Agriculture, Forest Service, Southern Research Station, 2002.

The White House and the U.S. Department of the Treasury. *The President's Framework for Business Tax Reform*. February 2012.

Yale Forest Forum Review. *Tax Policies and Family Forest Owners*. Volume 12, 2010.

Zhang, D. and W.A. Flick. *Sticks, Carrots, and Reforestation Investment*. Land Economics 77(3): 443-456, 2001.